New Program Request Form

Wind Energy Technology
Certificate A

Prepared for:
Kansas Board of Regents

Submitted by:
Cowley College
125 S. Second Street
Arkansas City, KS 67005
April 20, 2023

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New Program Request Form

CA1

General Information

Institution submitting proposal	Cowley College
Name, title, phone, and email of person submitting the application (*contact person for the approval process)*	Chris Cannon Department Chair 620-229-5985 chris.cannon@cowley.edu
Identify the person responsible for oversight of the proposed program	Chris Cannon Department Chair
Title of proposed program	Wind Energy Technology
Proposed suggested Classification of Instructional Program (CIP) Code	15.1704
CIP code description	A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing wind-powered energy systems. Includes instruction in wind energy principles, energy storage and transfer technologies, testing and inspection procedures, system maintenance procedures, and report preparation.
Standard Occupation Code (SOC) associated to the proposed program	49-9081
SOC description	Inspect, diagnose, adjust, or repair wind turbines. Perform maintenance on wind turbine equipment including resolving electrical, mechanical, and hydraulic malfunctions.
Number of credits for the degree and all certificates requested	Certificate A – 19 Credit Hours
Proposed Date of Initiation	August 1, 2023
Specialty program accrediting agency	None, however Global Wind Organization Training Standards were followed when possible.
Industry certification	None

Signature of College Official Michelle Schoon Date 4-20-2023

Signature of KBOR Official_____ Date_____

Program Rationale

The Wind Energy Technology program prepares students with the knowledge and skills to assemble, install, operate, maintain, and repair wind energy systems. The program will consist of a comprehensive curriculum that covers topics such as wind turbine technology, electrical and mechanical systems, safety protocols, and troubleshooting procedures. Graduates of the program will be prepared to enter the growing field of wind energy as technicians, with opportunities for career advancement and growth. This program aligns with Cowley College's commitment to sustainability and its mission to provide quality education that meets the needs of the community. Wind energy has become an increasingly important source of renewable energy in recent years, and as a result, the demand for skilled wind energy technicians has risen significantly.

Cowley College was requested to develop the Wind Technology certificate program by Alltite, a leading provider of wind turbine maintenance and repair services. Alltite has over 20 years of experience in the wind energy industry and is known for their expertise in the field of torque and tensioning. With this industry support, Cowley will be able to offer a comprehensive training program that combines theoretical knowledge with hands-on experience, giving students a competitive edge in the job market. Alltite’s current goal is to train 250 technicians by 2026, and provide continuing education for this workforce every 2 years through this program.

The proposed program will prepare new employees for rapid entry into the workforce and will also be used to provide continuing education for current employees. The Global Wind Organization (GWO) standards require retraining every 2 years for active technicians. This training can be provided by the Wind Energy Technology Program.

Program Description

The Wind Energy Technology program prepares students with the knowledge and skills to assemble, install, operate, maintain, and repair wind energy systems. The program will consist of a comprehensive curriculum that covers topics such as wind turbine technology, electrical and mechanical systems, safety protocols, and troubleshooting procedures. Graduates of the program will be prepared to enter the growing field of wind energy as technicians, with opportunities for career advancement and growth.

Please note: A full list of program objectives may be found in Appendix A.

Admission Requirements - Program

1. 18 years old, with a high school diploma (or GED or equivalent).

Admission Requirements - College

Cowley College welcomes students from across the United States and around the world. Admission to Cowley College is open to all individuals who can academically benefit from its educational programs. However, Cowley College reserves the right to deny a student admission or readmission if it is determined to be in the best interests of the college community to do so or if the college is unable to provide the services, courses or program(s) needed to assist the student in meeting educational objectives.

New Students

Before full admission can be granted, students must:

1. Complete a free Application for Admission. To Apply Online, go to www.cowley.edu/apply/index.html
2. Submit final high school transcript or GED results to the Admissions Office.
3. Provide ACT scores, if available.
4. Unless exempt from assessment based on ACT scores, take course placement assessment at one of Cowley's Enrollment Services' location. Contact your desired location for testing availability.
5. If you are an online students and unable to visit a Cowley College campus/center in person, special arrangements can be made if placement assessment testing is necessary. Contact us to make other arrangements. Email admissions@cowley.edu or call 620.441.6335.
6. Enroll with an Admissions Representative at any of our locations. Locations information is listed above. Instructions for enrolling are below in the ENROLLMENT section.
7. Applicants may be provisionally admitted for a maximum of twelve (12) credit hours pending submission of the required documents.

Graduation Requirements - Program

1. Detailed graduation requirements may be found in the Wind Techology syllabus and handbook.

Graduation Requirements - College

Cowley College policy 216 describes the requirements for graduation with a technical certificate. Those are as follows:

1. Successful completion of the certificate required courses.
2. A minimum of a 2.0 grade point average for all courses applied to the certificate.
3. Completion of a degree application and submit it to the Registrar's office according to the published deadlines for submission.
4. If a student does not maintain continuous enrollment (excludes summer), the student will be required to follow the graduation requirements that are in effect at the time of re-enrollment.

Catalog Descriptions

Please Note: WND prefix courses are new, other courses are preexisting courses.

WND 3660 – Introduction to Wind Energy (3 hrs.)
Students gain a basic understanding of the fundamental science behind harnessing useable energy from the wind.

WND 3661 – Wind Energy Technical Systems (3 hrs.)
Students will gain an awareness of the systems and hazards encountered when working on wind energy hydraulic, mechanical, electrical and installation systems. Students will also study how to control and mitigate these hazards, preparing them to work in the wind power industry.

WND 3662 – Field Safety and Experience (3 hrs.)
This Wind Technology Program course covers basic safety training, advanced rescue training, and basic first aid. The course will prepare participants to support and care for themselves and others working in the industry by possessing the knowledge and skills of first aid, working at heights, manual handling, fire awareness, and in case of an emergency, to be able to evacuate, rescue and provide appropriate first aid to casualties. The course will also prepare participants to perform entry-type injured person rescue operations in a wind turbine generator, using industry standard rescue equipment, rescue methods and techniques.

INR 3718 - OSHA 10 (1 hr.)
This course will enable the student to identify and understand safety hazards in a business or industrial setting. The principles learned in this course will allow the student to apply theory & guidelines in making a safe workplace.

MEC 3483 - Fluid Power (3 hrs.)
This course is an introduction to pressurized hydraulic components in power delivery and positioning systems. Students will use hydraulic pumps and motors and make hydraulic connections, measurements, and calculations to determine appropriate system components.

MEC 3484 - Principles of Electricity (3 hrs.)
Students will learn and apply the fundamentals of electricity in the following; motor phasing, conductor sizing, wiring, single &three-phase power, conduit bending, and the use of ladder diagrams and test equipment to meet acceptable codes and basic electrical standards used in various scenarios and industry types.

MEC 3492 - Programmable Logic Controllers (3 hrs.)
The student will program a PLC interfacing it with three or more components in a system. Students will troubleshoot an automated system locating faults in programming and programming errors.

Demand for the Program

Please note: A list of support letters may be found in Appendix B.

The Wind Technology program is being developed at the request of local industry partner Alltite. Alltite's goal is to train 250 technicians by 2026. Currently, this training takes place in Texas. After this program is approved, Alltite plans to send all of their new employees to complete their initial training at Cowley College. In addition to training this initial 250 technicians, continued classes will be required due to attrition. Continuing education will also be a large component of the program, as GWO training standards state that technicians must receive this training every 2 years, so there is a built-in sustained audience of students for the program.

NextEra Energy has also stated an interest in supporting the program by potentially providing interviews and hiring program graduates. This company also indicated their willingness to support the program by providing materials and equipment.

Kansas Department of Labor Data

As stated above, Alltite plans to train 250 employees through this program by 2026 at a minimum. This is not counting the continuing education that must be completed every 2 years by all of these 250 employees, or new employees hired due to attrition.

Wage information from Kansas Department of Labor shows a mean income of $54,980 and a median income of $48,670.

Data from the Kanas Department of Labor for the SOC code 49-9081 has small cell suppression activated, so no data is available for job openings.

A search on Glassdoor for Wind Turbine Technicians in Kansas on 4/18/23 showed 13 current openings. Please note, these are **current** openings, not annual openings.

A search on Kansasworks.com for Wind Turbine Technician job postings in the Wichita, KS area on 4/18/23 showed 6 current openings. Please note, these are **current** openings, not annual openings.

Perkins Comprehensive Local Needs Assessment

The current program was not identified as a need at the last Local Needs Assessment, as our industry partner for this application was not present. The next CLNA will be updated to reflect the pressing local need for this program.

High School Students

The Wind Energy Technology program will not be offered to high school students.

Business/Industry Partnerships

Cowley College has a partnership with Alltite for this program. Alltite representatives serve on the program advisory committee and have helped develop the initial curriculum for the program.

Duplication of Existing Programs

Both Cloud County Community College and Colby Community College have wind energy technology programs, both including certificate and associate degree programs. No K-TIP data was available for the Cloud County Community College Program.

Kansas Training Information Program (K-TIP) Data

2021 K-TIP Report Data					
15.1704 Wind Energy Technology					
Institution	**Total # Concentrators**	**Total # Graduates**	**Total # Graduates Exited**	**Total # Graduates Exited and Employed**	**Average Wage: Graduates Exited and Employed**
Colby Community College	9	6	^^	^^	^^

Was collaboration with similar programs pursued:

Cowley College did reach out to Cloud County Community College to visit with them about their program. No response was received before the deadline for submission. Additionally, the CFO reached out to get information regarding equipment needs but did not receive a response before the deadline. There are no other similar programs in our region of the state and the industry partners are specific to our location. Cowley will continue to reach out for collaboration on curriculum and equipment.

Program Information

Please refer to Appendix C for a listing of the Programs of Study for the Certificate A.

Certificate A – 19 Hours

WND 3660 – Introduction to Wind Energy (3 hrs.)
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This Wind Technology Program course covers basic safety training, advanced rescue training, and basic first aid. The course will prepare participants to support and care for themselves and others working in the industry by possessing the knowledge and skills of first aid, working at heights, manual handling, fire awareness, and in case of an emergency, to be able to evacuate, rescue and provide appropriate first aid to casualties. The course will also prepare participants to perform entry-type injured person rescue operations in a wind turbine generator, using industry standard rescue equipment, rescue methods and techniques.

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Faculty

Faculty qualifications for a lead instructor include:

1. AAS Degree or higher in Wind Energy Technology or equivalent
2. 3 years of field experience

Faculty qualifications for a lab assistant/clinical coordinator include:

1. Certificate in Wind Energy Technology or equivalent
2. AAS Degree or higher in Wind Energy Technology or equivalent preferred
3. 1 year of field experience preferred

Cost and Funding for Proposed Program

The Wind Technology program will be conducted at the existing Cowley College Wellington campus. No extra costs will be incurred for physical facilities.

Faculty costs are paid out of the Cowley College CTE department budget from local funds and based on tuition and fees collected for enrollment. For a faculty member to receive full pay for a class, a minimum of 6 students must be enrolled and attend the course. Courses with less than 6 students enrolled may be either cancelled, or the faculty member can agree to teach the course for a reduced contract.

New equipment is anticipated to be required for the program, and Cowley College is currently working with an industry partner to secure a nacelle, generator, and other needed items for the program. All other required equipment items will be purchased from the Cowley College budget.

Program Review and Assessment

Cowley College utilizes a 3-year program review cycle that is administered by the Academic Affairs office. The review consists of a self-study document that is prepared by the program faculty. The self-study is then reviewed and approved by the following: Vice President for Academics, Department Chair, Other Academic Department Chairs (Peer Review), President, Board of Trustees Academic Sub-Committee, and the Board of Trustees.

Program Approval at the Institution Level

Program Advisory Committee

Wind Energy Program Advisory Meeting Meetings 02.6.2023

Present: Chris Cannon-Cowley, Bob Beltz-Wind Turbine, Steve Anderson-former Wind Turbine tech, Matt Harding-14 years- Wind Energy/GE, Mike Brookes-40 years in utilities, Rigoberto Murillo-15 years in industry, Tom Wilson- Wind Service Tech Supervisor, Joe Clasen- Dept Chair Tech Ed at Cowley, Dr. Michelle Schoon- Cowley President.

Not Present: Anne Smith, Terrence McGuire.

Developing Program: Chris Cannon, Advisory Chair, explained "what is an advisory committee" and explained the group meets twice a year and is a group that ensures Tech programs adhere to the industry standards.

Future Course Questions:

What is needed in this course to ensure students are fully capable to be productive and responsive employees in the program at graduation. Rigoberto asked what needs to change in the current education standards? What is the desired outcome? Does there need to be Tech aptitude test? Or a new exam to filter potential students? Who is the desired target student?

Bob Beltz stated that students could easily "google" what Wind Energy" is as standards sit right now. He suggested that there should be three- 12-day training courses that covers intro to what wind energy is, then tech training, then in the field training. Since current techs lack understanding of the mechanics of the Turbines and the safety concerns, the courses need to be short but concise, but covers the educational needs that the industry needs.

Course Procedures will come from Chris Cannon. Dr. Schoon stated that the certificate that the students receive after completing this program should be something that will allow them to be hired into the industry.

Bob Beltz stated that a breakdown of what the classes need and then program needs to be "tailor made" to ensure bests industry practices are met. The "Uglies Book" which every journeyman has- that is the basics which are not taught in the classroom or are "hacks" of the industry would be an excellent reference book that could be created and copyrighted just for Cowley so students may reference their own "Wind Energy Uglies Book" while out in the field.

Dr. Schoon stated that course procedures will need to be created by Chris and Bob Beltz and others, but the initial program will just be a first draft, open for interpretation, edits, and tweaks. It was presented to the group to voting to start creating the course content/procedures- **Mike Brookes motioned to approve with future edits acceptable, Rigoberto Murillo seconded. All were in favor and it was passed.**

Motion was presented to approve the Certification Grid with the additions of safety protocols and field safety standards. **Rigoberto Murillo approved, Bob Beltz seconded- all approved and the motion carried.**

Bob Beltz moved to adjourn, Chris Cannon seconded, All approved.

Program Approval at the Institution Level

Curriculum Committee

ACADEMIC AFFAIRS MEETING MINUTES
February 16, 2023 at 2:15 p.m.
Student Life Conference Room

In person attendance: Michelle Schoon, Janice Stover, Shelby Huddleston, Devin Graves, Todd Shepherd, Marlys Cervantes, Scott Layton, Mark Flickinger.

Attendance via Zoom: Joe Clasen, Chris Cannon, Julia Jarboe.

COURSE/CURRICULUM UPDATES

Wind Energy – Four classes already established from INR/MEC. Chris and Joe met with the steering committee and will meet with the advising committee once approved. This certificate program is a request from the industry. Course numbers for new WND courses: Intro. to Wind Energy – WND3660, Field Safety and Experience – WND3662, Wind Technical Systems – WND3661. These new courses will be 2-hour lecture and 1-hour lab. Will need a face to face OSHA instructor. Steve Anderson on the advisory council has taught this program before and expressed interest to teach it again if we are approved. There are also a few other people who have expressed interest. It was then asked if there is an age limit on this program – would high school students be allowed to take these courses. It should be implied 18 and older, but will need to find that verbiage to add so high school students under the age of 18 don't enroll. Motion to approve course procedures made by Todd, seconded by Mark. Michelle approved and motion carried. Motion to approve program grid made by Janice, seconded by Scott. Michelle approved and motion carried.

Meeting adjourned at 4:21 p.m.
Minutes recorded by Katie Phillips.

Program Approval at the Institution Level

Governing Board

EXCERPT OF MINUTES

MEETING OF THE GOVERNING BODY OF
COWLEY COLLEGE, COWLEY COUNTY, KANSAS,
HELD ON MARCH 13, 2023

The Board of Trustees of Cowley College met in open session in the President's Private Dining Room inside the McAtee Dining Room, 206 S. 4th St., Arkansas City, KS. The Chairperson presided, and the following members of the Board of Trustees were present or absent as indicated:

	Present	**Absent**
Dr. Steve Abrams, Vice Chair	X	
Brett Bazil, Chair	X	
Dr. Alan Marcotte, Trustee	X	
Bob McGregor, Trustee	X	
David Stanley, Trustee	X	
Gary Wilson, Trustee	X	
Glennis Zimmerman, Trustee	X	
Tiffany Vollmer, Clerk of the Board	X	

The Chairperson declared that a quorum was present and called the meeting to order. The Board of Trustees heard and approved Awards and Reports, Public Comment, Consent Agenda, Discussion Agenda and Other Business

(Other Proceedings)

* * * * * * *

Under Standing Committee Reports, Chair Bazil requested the following:

A RESOLUTION APPROVING THE WIND TURBINE (WIND ENERGY) TECHNOLOGY CERTIFICATE A AND RELATED COURSES AS PRESENTED.

Thereupon, Trustee Marcotte moved that said Resolution be passed. The motion was seconded by Trustee Wilson. Said Resolution was duly read and considered, and upon being put, the motion for the adoption of said Resolution was carried by the vote of the governing body, the vote being as follows:

Aye: 7

Nay: 0

Thereupon, the Chairperson declared the Resolution duly adopted and was signed by the Chairperson and attested by the Clerk of the Board of Trustees.

* * * * * * *

(Other Proceedings)

There being no further business to come before the meeting, on motion duly made and seconded, the meeting was adjourned.

ADOPTED by the governing body and approved by the Chairperson of Cowley College, this 13th day of March, 2023.

Chairperson

ATTEST:

Clerk of the Board of Trustee

Appendix A

Course Procedures
(includes objectives)

COWLEY COLLEGE COURSE PROCEDURE

WND3660– INTRODUCTION TO WIND ENERGY
3 Credit Hours

Student Level:
This course is open to students on the college level in either the Freshman or Sophomore year.

Catalog Description:
WND3660 – Introduction to Wind Energy (3 hrs.)
Students gain a basic understanding of the fundamental science behind harnessing useable energy from the wind.

KRSN: NA

Course Classification: 2 hr. Lecture/1 hr. Lab

Prerequisites:
Acceptance into the Wind Technology program.

Co-requisites:
NONE

Controlling Purpose:
The purpose of this course is to provide an in-depth introduction to wind power as a sustainable form of energy. It examines the history, current applications, and future of wind power.

Core Outcomes: (If KRSN course put this statement)
The learning outcomes and competencies detailed in this course meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

Learner Outcomes:
Upon completion of the course, the student will:
1. Outline the main historical developments of wind power.
2. Describe in detail how wind turbines produce usable energy from the wind.
3. Discuss the economics of wind power.

Unit Outcomes for Criterion Based Evaluation:
The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Wind Power History
Outcomes: Upon completion of this unit, the students will be able to

- Outline the main historical developments of wind power.
- Describe the history of renewable energy sources, to include advantages and disadvantages of wind power compared to other renewable energy sources.

- Define three advantages of wind power when compared to traditional energy sources.
- Describe the primary benefits and limitations of wind power.

UNIT 2: Wind Turbines
Outcomes: Upon completion of this unit, the students will be able to

- Describe in detail how wind turbines produce useable energy from the wind.
- Describe the different types of wind turbines and towers available on the market today.
- List the steps involved in the construction of small, medium, and large wind turbines.

UNIT 3: Wind Energy Economics
Outcomes: Upon completion of this unit, the students will be able to

- Calculate the economic return on investment for a wind turbine.
- Describe the process for determining the physical and economic feasibility of wind energy for different sites and applications.
- Debate the pros and cons of large-scale wind energy development on land and offshore.

Projects Required:
Varies, refer to syllabus.

Textbook:
Contact Bookstore for current textbook.

Materials/Equipment Required:
None

Attendance Policy:
Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:
The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:
Based on classroom occupancy

Course Time Frame:
The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

Refer to the following policies:

402.00 Academic Code of Conduct
263.00 Student Appeal of Course Grades
403.00 Student Code of Conduct

Disability Services Program:

Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If a student has a disability which may impact work in this class and which requires accommodations, contact the Disability Services Coordinator.

Rev. 2/16/2023

COWLEY COLLEGE COURSE PROCEDURE

WND3662– FIELD SAFETY AND EXPERIENCE
3 Credit Hours

Student Level:
This course is open to students on the college level in either the Freshman or Sophomore year.

Catalog Description:
WND3662 – Field Safety and Experience (3 hrs.)
This Wind Technology Program course covers basic safety training, advanced rescue training, and basic first aid. The course will prepare participants to support and care for themselves and others working in the industry by possessing the knowledge and skills of first aid, working at heights, manual handling, fire awareness, and in case of an emergency, to be able to evacuate, rescue and provide appropriate first aid to casualties. The course will also prepare participants to perform entry-type injured person rescue operations in a wind turbine generator, using industry standard rescue equipment, rescue methods and techniques.

KRSN: NA

Course Classification: 2 hr. Lecture/1 hr. Lab

Prerequisites:
Acceptance into the Wind Technology program.

Co-requisites:
NONE

Controlling Purpose:
The purpose of this course is to provide basic safety training, advanced rescue training, and basic first aid training to participants to enable them to provide self-care and rescue/care of others in emergency situations.

Core Outcomes: (If KRSN course put this statement)
The learning outcomes and competencies detailed in this course meet, or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

Learner Outcomes:
Upon completion of the course, the student will:

1. Be able to support and care for themselves and others working in the industry by possessing the knowledge and skills of first aid, working at heights, manual handling, fire awareness, and in case of an emergency, to be able to evacuate, rescue and provide appropriate first aid to casualties.
2. Be able to perform entry-type injured person rescue operations in a wind turbine generator, using industry standard rescue equipment, rescue methods and techniques.

3. Be able to support and care for others working in the industry and to provide ongoing care to an ill or injured casualty over a short period of time while waiting for professional emergency rescue teams to arrive.

Unit Outcomes for Criterion Based Evaluation:

The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Basic Safety Training – First Aid and CPR

Outcomes: Upon completion of this unit, the students will be able to

- Act independently in recognizing, assessing, and prioritizing the need for basic first aid and providing lifesaving first aid until the casualty can be handed over to the next level of care in case of an incident in the wind turbine industry/WTG environment.
- Take responsibility for recognizing their limitations as a basic first aider, calling for help and enable evacuation off the casualty in case of an incident in the wind turbine industry/WTG environment.
- Gain an understanding of various trauma and medical conditions and how to treat each using basic first aid skills.
- Provide CPR and AED therapy to patients requiring this treatment.

UNIT 2: Basic Safety Training – Manual Handling

Outcomes: Upon completion of this unit, the students will be able to

- Reduce the risk of musculoskeletal injuries for wind technicians in the wind industry and enable participants to perform their tasks and activities in the safest possible way when working in a wind turbine environment.
- Take responsibility for the use of essential manual handling principles to reduce the risk of musculoskeletal injury when performing physical tasks and activities in the wind industry.

UNIT 3: Basic Safety Training – Fire Awareness

Outcomes: Upon completion of this unit, the students will be able to

- Act independently in identifying fire hazards and preventing fires in a wind turbine environment.
- Take responsibility for assessing a fire and, if needed, be able to select the right extinguishing media according to the fire classes.
- Take responsibility for the evacuation of personnel and ensure all are safely accounted for in the event of an unmanageable fire.
- Act independently in efficiently extinguishing an initial fire by using basic handheld firefighting equipment, if the incident is judged to be safe.

UNIT 4: Basic Safety Training – Working at Heights

Outcomes: Upon completion of this unit, the students will be able to

- Use basic personal protective equipment, work safety at height and perform comprehensive basic rescue from height in a remote wind turbine environment.
- Act safely and responsibly and apply good manual handling techniques when working at heights and performing comprehensive basic rescue from heights.

UNIT 5: Basic Safety Training – Sea Survival

Outcomes: Upon completion of this unit, the students will be able to

- Act safely and responsibly in an offshore work environment and take responsibility for their own and fellow employees' safety in work situations as well as in emergency situations.

UNIT 6: Advanced Rescue Training – Hub Rescue

Outcomes: Upon completion of this unit, the students will be able to

- Determine rescue and evacuation strategy, performing rescue operations in a WTG hub, spinner and inside the blade.
- Perform rescue operations, in a WTG hub, spinner and inside the blade by using industry standard rescue equipment, methods and techniques.
- Explain the concepts of lifting angle, angle factor and deviation considering common risks of hazardous energies and common hazards.

UNIT 7: Advanced Rescue Training – Nacelle, Tower and Basement Rescue

Outcomes: Upon completion of this unit, the students will be able to

- Perform rescue operations using the casualties personal fall protection on the injured.
- Perform rescue operations in a WTG nacelle, tower and basement using a handheld lamp.
- Provide transportation of an injured person horizontally over the length of the turbine.
- Provide transportation of an injured person to a higher platform using rescue techniques and equipment (both manual and power-driven).
- Apply clear communication and guidance to other emergency responders (e.g., vessel or ambulance crew) including coordinating the handover of an injured person.
- Acknowledge the benefits of having a coordinator in a rescue team, and the responsibility that comes with it.
- Take part in discussing which advanced rescue preparations and emergency & communication procedures apply in their own organization.
- Commit to demonstrating a pro-active approach and role model behavior.

UNIT 8: Advanced Rescue Training – Single Rescuer

Outcomes: Upon completion of this unit, the students will be able to

- Assess and determine single rescuer rescue strategy (relevant rescue method, technique, certified equipment and how to organize the rescue efforts and incident scene) for various rescue scenarios, in a WTG hub, spinner and inside a blade.
- Apply rescue methods and techniques in performing descending and ascending single rescuer rescue operations, from a WTG hub, spinner and inside a blade using: a rescue stretcher and transfer board; manually operated lowering/raising rescue system for limited distance rescue (rescue device, pulley system or similar); and other rescue equipment relevant to the participant.
- Assess and determine single rescuer rescue strategy (relevant rescue method, technique, certified equipment and how to organize the rescue efforts and incident scene) for various rescue scenarios, in a WTG nacelle, tower and basement.
- Apply rescue methods and techniques in performing descending and ascending single rescuer rescue operations, from a WTG nacelle, tower and basement using a rescue stretcher and

transfer board, manually operated and power-driven lowering/raising rescue system (rescue device and pulley system or similar), and other rescue equipment relevant to the participant.

UNIT 9: LOTO, Arc Flash, Confined Space and Basic Rigging

Outcomes: Upon completion of this unit, the students will be able to

- Perform the proper procedures to safely complete a lockout/tagout per approved OSHA standards.
- Describe the hazards or arc flash, including the appropriate PPE and safe distances defined by NFPA.
- Describe the safety procedures utilized when working in confined spaces.
- Recall the techniques and safety precautions utilized when completing basic rigging tasks.

UNIT 10: Stop Work Authority, Incident Reporting and Job Safety Analysis

Outcomes: Upon completion of this unit, the students will be able to

- Defend the importance of a robust Stop Work Authority process that can be used by all involved parties to ensure safety of the task or operation.
- Describe the method of implementing a Stop Work order.
- Explain the steps required for proper incident reporting for either incident report or nonconformity review.
- Define how a Job Safety Analysis tool and program can be utilized to improve the overall safety of a job, task or operation.

Projects Required:

Varies, refer to syllabus.

Textbook:

Contact Bookstore for current textbook.

Materials/Equipment Required:

None

Attendance Policy:

Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:

The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:

Based on classroom occupancy

Course Time Frame:

The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen

weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

Refer to the following policies:

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403.00 Student Code of Conduct

Disability Services Program:

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Rev. 2/16/2023

COWLEY COLLEGE COURSE PROCEDURE

WND3661– WIND ENERGY TECHNICAL SYSTEMS
3 Credit Hours

Student Level:
This course is open to students on the college level in either the Freshman or Sophomore year.

Catalog Description:
WND3661 Wind Energy Technical Systems (3 hrs.)
Students will gain an awareness of the systems and hazards encountered when working on wind energy hydraulic, mechanical, electrical and installation systems. Students will also study how to control and mitigate these hazards, preparing them to work in the wind power industry.

KRSN: NA

Course Classification: 2 hr. Lecture/1 hr. Lab

Prerequisites:
Acceptance into the Wind Technology program.

Co-requisites:
NONE

Controlling Purpose:
The purpose of this course is to provide an overview of the systems and hazards encountered when working on wind energy equipment, to include hydraulic, mechanical, electrical and installation systems.

Core Outcomes: (If KRSN course put this statement)
The learning outcomes and competencies detailed in this course meet, or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

Learner Outcomes:
Upon completion of the course, the student will:
1. Perform basic mechanical tasks under the supervision of an experienced technician.
2. Work safely with electricity under supervision in a wind turbine environment.
3. Carry out basic hydraulic tasks, supervised by an experienced technician.
4. Work safely with basic installation tasks under supervision in a wind turbine environment.

Unit Outcomes for Criterion Based Evaluation:
The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Mechanical Systems
Outcomes: Upon completion of this unit, the students will be able to

- Describe energy, wind speed/direction, and how a wind turbine works.
- Describe how the wind turbine uses the wind to produce electricity.
- Describe the main components of the turbine structure.
- Explain the location, importance, and inspection procedures for welded and bolted connections.
- Demonstrate how to use feeler gauges, torque wrenches, calipers, and other tools to measure and tighten connections.
- Describe the function and inspection of the gearbox, yaw system, and aerodynamic brake.
- Define how to inspect the cooling and lubrication systems.

UNIT 2: Electrical Systems

Outcomes: Upon completion of this unit, the students will be able to

- Describe the appropriate PPE, safety precautions and possible human factors to consider when working on electrical systems.
- Recall the basic components of electrical system principles, including DC, AC, ohm's law, batteries, switches, contacts, resistors, relays, diodes, rectifiers, capacitors, transformers, generators, motors, fuses, circuit breakers, and processor control systems.
- Define the importance of sensors and their functions for wind energy applications.
- Recall electrical circuit diagrams, symbols, and assembly.
- Utilize electrical measuring instruments.

UNIT 3: Hydraulic Systems

Outcomes: Upon completion of this unit, the students will be able to

- Describe the safety instructions and emergency procedures for dealing with hydraulic systems.
- Describe Pascal's Law and how it integrates with hydraulic systems.
- Recall the functions of valves, actuators, pumps, and sensors in a hydraulic system.
- Describe the procedure for checking oil and filters, to include collecting an oil sample.
- Define the symbols, diagrams and measuring points used in hydraulics, including pressure measuring tools.

UNIT 4: Installation

Outcomes: Upon completion of this unit, the students will be able to

- Describe the safety instructions, PPE, and emergency procedures for installation of wind energy components.
- Describe how to utilize checklists in the installation environment.
- Explain the risks and hazards associated with handling and storing of wind energy components.
- Recall the types of lifting operations and the risks and hazards associated with each.
- Explain the preparation, pre-assembly, and assembly of the main wind energy components.
- Define the principles of mechanical, electrical, and hydraulic completion to include several examples of each.

Projects Required:
Varies, refer to syllabus.

Textbook:
Contact Bookstore for current textbook.

Materials/Equipment Required:
None

Attendance Policy:
Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:
The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:
Based on classroom occupancy

Course Time Frame:
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COWLEY COLLEGE COURSE PROCEDURE

WND3660 – INTRODUCTION TO WIND ENERGY
3 Credit Hours

Student Level:
This course is open to students on the college level in either the Freshman or Sophomore year.

Catalog Description:
WND3660 – Introduction to Wind Energy (3 hrs.)
Students gain a basic understanding of the fundamental science behind harnessing useable energy from the wind.

KRSN: NA

Course Classification: Lecture/Lab

Prerequisites:
Acceptance into the Wind Technology program.

Co-requisites:
NONE

Controlling Purpose:
The purpose of this course is to provide an in-depth introduction to wind power as a sustainable form of energy. It examines the history, current applications, and future of wind power.

Core Outcomes: (If KRSN course put this statement)
The learning outcomes and competencies detailed in this course meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

Learner Outcomes:
Upon completion of the course, the student will:
1. Outline the main historical developments of wind power.
2. Describe in detail how wind turbines produce usable energy from the wind.
3. Discuss the economics of wind power.

Unit Outcomes for Criterion Based Evaluation:
The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Wind Power History
Outcomes: Upon completion of this unit, the students will be able to

- Outline the main historical developments of wind power.
- Describe the history of renewable energy sources, to include advantages and disadvantages of wind power compared to other renewable energy sources.

- Define three advantages of wind power when compared to traditional energy sources.
- Describe the primary benefits and limitations of wind power.

UNIT 2: Wind Turbines
Outcomes: Upon completion of this unit, the students will be able to

- Describe in detail how wind turbines produce useable energy from the wind.
- Describe the different types of wind turbines and towers available on the market today.
- List the steps involved in the construction of small, medium, and large wind turbines.

UNIT 3: Wind Energy Economics
Outcomes: Upon completion of this unit, the students will be able to

- Calculate the economic return on investment for a wind turbine.
- Describe the process for determining the physical and economic feasibility of wind energy for different sites and applications.
- Debate the pros and cons of large-scale wind energy development on land and offshore.

Projects Required:
Varies, refer to syllabus.

Textbook:
Contact Bookstore for current textbook.

Materials/Equipment Required:
None

Attendance Policy:
Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:
The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:
Based on classroom occupancy

Course Time Frame:
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Rev. MM/DD/YEAR

COWLEY COLLEGE COURSE PROCEDURE

WND3662 – FIELD SAFETY AND EXPERIENCE
3 Credit Hours

Student Level:
This course is open to students on the college level in either the Freshman or Sophomore year.

Catalog Description:
WND3662 – Field Safety and Experience (3 hrs.)
This Wind Technology Program course covers basic safety training, advanced rescue training, and basic first aid. The course will prepare participants to support and care for themselves and others working in the industry by possessing the knowledge and skills of first aid, working at heights, manual handling, fire awareness, and in case of an emergency, to be able to evacuate, rescue and provide appropriate first aid to casualties. The course will also prepare participants to perform entry-type injured person rescue operations in a wind turbine generator, using industry standard rescue equipment, rescue methods and techniques.

KRSN: NA

Course Classification: Lecture/Lab

Prerequisites:
Acceptance into the Wind Technology program.

Co-requisites:
NONE

Controlling Purpose:
The purpose of this course is to provide basic safety training, advanced rescue training, and basic first aid training to participants to enable them to provide self-care and rescue/care of others in emergency situations.

Core Outcomes: (If KRSN course put this statement)
The learning outcomes and competencies detailed in this course meet, or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

Learner Outcomes:
Upon completion of the course, the student will:

1. Be able to support and care for themselves and others working in the industry by possessing the knowledge and skills of first aid, working at heights, manual handling, fire awareness, and in case of an emergency, to be able to evacuate, rescue and provide appropriate first aid to casualties.
2. Be able to perform entry-type injured person rescue operations in a wind turbine generator, using industry standard rescue equipment, rescue methods and techniques.

3. Be able to support and care for others working in the industry and to provide ongoing care to an ill or injured casualty over a short period of time while waiting for professional emergency rescue teams to arrive.

Unit Outcomes for Criterion Based Evaluation:

The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Basic Safety Training – First Aid and CPR

Outcomes: Upon completion of this unit, the students will be able to

- Act independently in recognizing, assessing, and prioritizing the need for basic first aid and providing lifesaving first aid until the casualty can be handed over to the next level of care in case of an incident in the wind turbine industry/WTG environment.
- Take responsibility for recognizing their limitations as a basic first aider, calling for help and enable evacuation off the casualty in case of an incident in the wind turbine industry/WTG environment.
- Gain an understanding of various trauma and medical conditions and how to treat each using basic first aid skills.
- Provide CPR and AED therapy to patients requiring this treatment.

UNIT 2: Basic Safety Training – Manual Handling

Outcomes: Upon completion of this unit, the students will be able to

- Reduce the risk of musculoskeletal injuries for wind technicians in the wind industry and enable participants to perform their tasks and activities in the safest possible way when working in a wind turbine environment.
- Take responsibility for the use of essential manual handling principles to reduce the risk of musculoskeletal injury when performing physical tasks and activities in the wind industry.

UNIT 3: Basic Safety Training – Fire Awareness

Outcomes: Upon completion of this unit, the students will be able to

- Act independently in identifying fire hazards and preventing fires in a wind turbine environment.
- Take responsibility for assessing a fire and, if needed, be able to select the right extinguishing media according to the fire classes.
- Take responsibility for the evacuation of personnel and ensure all are safely accounted for in the event of an unmanageable fire.
- Act independently in efficiently extinguishing an initial fire by using basic handheld firefighting equipment, if the incident is judged to be safe.

UNIT 4: Basic Safety Training – Working at Heights

Outcomes: Upon completion of this unit, the students will be able to

- Use basic personal protective equipment, work safety at height and perform comprehensive basic rescue from height in a remote wind turbine environment.
- Act safely and responsibly and apply good manual handling techniques when working at heights and performing comprehensive basic rescue from heights.

UNIT 5: Basic Safety Training – Sea Survival

Outcomes: Upon completion of this unit, the students will be able to

- Act safely and responsibly in an offshore work environment and take responsibility for their own and fellow employees' safety in work situations as well as in emergency situations.

UNIT 6: Advanced Rescue Training – Hub Rescue

Outcomes: Upon completion of this unit, the students will be able to

- Determine rescue and evacuation strategy, performing rescue operations in a WTG hub, spinner and inside the blade.
- Perform rescue operations, in a WTG hub, spinner and inside the blade by using industry standard rescue equipment, methods and techniques.
- Explain the concepts of lifting angle, angle factor and deviation considering common risks of hazardous energies and common hazards.

UNIT 7: Advanced Rescue Training – Nacelle, Tower and Basement Rescue

Outcomes: Upon completion of this unit, the students will be able to

- Perform rescue operations using the casualties personal fall protection on the injured.
- Perform rescue operations in a WTG nacelle, tower and basement using a handheld lamp.
- Provide transportation of an injured person horizontally over the length of the turbine.
- Provide transportation of an injured person to a higher platform using rescue techniques and equipment (both manual and power-driven).
- Apply clear communication and guidance to other emergency responders (e.g., vessel or ambulance crew) including coordinating the handover of an injured person.
- Acknowledge the benefits of having a coordinator in a rescue team, and the responsibility that comes with it.
- Take part in discussing which advanced rescue preparations and emergency & communication procedures apply in their own organization.
- Commit to demonstrating a pro-active approach and role model behavior.

UNIT 8: Advanced Rescue Training – Single Rescuer

Outcomes: Upon completion of this unit, the students will be able to

- Assess and determine single rescuer rescue strategy (relevant rescue method, technique, certified equipment and how to organize the rescue efforts and incident scene) for various rescue scenarios, in a WTG hub, spinner and inside a blade.
- Apply rescue methods and techniques in performing descending and ascending single rescuer rescue operations, from a WTG hub, spinner and inside a blade using: a rescue stretcher and transfer board; manually operated lowering/raising rescue system for limited distance rescue (rescue device, pulley system or similar); and other rescue equipment relevant to the participant.
- Assess and determine single rescuer rescue strategy (relevant rescue method, technique, certified equipment and how to organize the rescue efforts and incident scene) for various rescue scenarios, in a WTG nacelle, tower and basement.
- Apply rescue methods and techniques in performing descending and ascending single rescuer rescue operations, from a WTG nacelle, tower and basement using a rescue stretcher and

transfer board, manually operated and power-driven lowering/raising rescue system (rescue device and pulley system or similar), and other rescue equipment relevant to the participant.

UNIT 9: LOTO, Arc Flash, Confined Space and Basic Rigging
Outcomes: Upon completion of this unit, the students will be able to

- Perform the proper procedures to safely complete a lockout/tagout per approved OSHA standards.
- Describe the hazards or arc flash, including the appropriate PPE and safe distances defined by NFPA.
- Describe the safety procedures utilized when working in confined spaces.
- Recall the techniques and safety precautions utilized when completing basic rigging tasks.

UNIT 10: Stop Work Authority, Incident Reporting and Job Safety Analysis
Outcomes: Upon completion of this unit, the students will be able to

- Defend the importance of a robust Stop Work Authority process that can be used by all involved parties to ensure safety of the task or operation.
- Describe the method of implementing a Stop Work order.
- Explain the steps required for proper incident reporting for either incident report or nonconformity review.
- Define how a Job Safety Analysis tool and program can be utilized to improve the overall safety of a job, task or operation.

Projects Required:
Varies, refer to syllabus.

Textbook:
Contact Bookstore for current textbook.

Materials/Equipment Required:
None

Attendance Policy:
Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:
The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:
Based on classroom occupancy

Course Time Frame:
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COWLEY COLLEGE COURSE PROCEDURE

WND3661 – WIND ENERGY TECHNICAL SYSTEMS
3 Credit Hours

Student Level:
This course is open to students on the college level in either the Freshman or Sophomore year.

Catalog Description:
WND3661 – Wind Energy Technical Systems (3 hrs.)
Students will gain an awareness of the systems and hazards encountered when working on wind energy hydraulic, mechanical, electrical and installation systems. Students will also study how to control and mitigate these hazards, preparing them to work in the wind power industry.

KRSN: NA

Course Classification: Lecture/Lab

Prerequisites:
Acceptance into the Wind Technology program.

Co-requisites:
NONE

Controlling Purpose:
The purpose of this course is to provide an overview of the systems and hazards encountered when working on wind energy equipment, to include hydraulic, mechanical, electrical and installation systems.

Core Outcomes: (If KRSN course put this statement)
The learning outcomes and competencies detailed in this course meet, or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

Learner Outcomes:
Upon completion of the course, the student will:

1. Perform basic mechanical tasks under the supervision of an experienced technician.
2. Work safely with electricity under supervision in a wind turbine environment.
3. Carry out basic hydraulic tasks, supervised by an experienced technician.
4. Work safely with basic installation tasks under supervision in a wind turbine environment.

Unit Outcomes for Criterion Based Evaluation:
The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Mechanical Systems
Outcomes: Upon completion of this unit, the students will be able to

- Describe energy, wind speed/direction, and how a wind turbine works.
- Describe how the wind turbine uses the wind to produce electricity.
- Describe the main components of the turbine structure.
- Explain the location, importance, and inspection procedures for welded and bolted connections.
- Demonstrate how to use feeler gauges, torque wrenches, calipers, and other tools to measure and tighten connections.
- Describe the function and inspection of the gearbox, yaw system, and aerodynamic brake.
- Define how to inspect the cooling and lubrication systems.

UNIT 2: Electrical Systems

Outcomes: Upon completion of this unit, the students will be able to

- Describe the appropriate PPE, safety precautions and possible human factors to consider when working on electrical systems.
- Recall the basic components of electrical system principles, including DC, AC, ohm's law, batteries, switches, contacts, resistors, relays, diodes, rectifiers, capacitors, transformers, generators, motors, fuses, circuit breakers, and processor control systems.
- Define the importance of sensors and their functions for wind energy applications.
- Recall electrical circuit diagrams, symbols, and assembly.
- Utilize electrical measuring instruments.

UNIT 3: Hydraulic Systems

Outcomes: Upon completion of this unit, the students will be able to

- Describe the safety instructions and emergency procedures for dealing with hydraulic systems.
- Describe Pascal's Law and how it integrates with hydraulic systems.
- Recall the functions of valves, actuators, pumps, and sensors in a hydraulic system.
- Describe the procedure for checking oil and filters, to include collecting an oil sample.
- Define the symbols, diagrams and measuring points used in hydraulics, including pressure measuring tools.

UNIT 4: Installation

Outcomes: Upon completion of this unit, the students will be able to

- Describe the safety instructions, PPE, and emergency procedures for installation of wind energy components.
- Describe how to utilize checklists in the installation environment.
- Explain the risks and hazards associated with handling and storing of wind energy components.
- Recall the types of lifting operations and the risks and hazards associated with each.
- Explain the preparation, pre-assembly, and assembly of the main wind energy components.
- Define the principles of mechanical, electrical, and hydraulic completion to include several examples of each.

Projects Required:
Varies, refer to syllabus.

Textbook:
Contact Bookstore for current textbook.

Materials/Equipment Required:
None

Attendance Policy:
Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:
The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:
Based on classroom occupancy

Course Time Frame:
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[ARCHIVED CATALOG]

INR3718 OSHA 10 COURSE PROCEDURE

INR3718 OSHA 10

1 Credit Hour

Student Level:

This course is open to students on the college level in either the freshman or sophomore year and to area high school vocational students.

Catalog Description:

INR3718 - OSHA 10 (1 hr.)

This course will enable the student to identify and understand safety hazards in a business or industrial setting. The principles learned in this course will allow the student to apply theory & guidelines in making a safe workplace.

Course Classification:

Lecture

Prerequisites:

This course is open to all students who are accepted in technical programs.

Controlling Purpose:

To provide students with a fundamental knowledge of safety procedures as outlined by OSHA standards.

Learner Outcomes:

Upon completion of the course, the student will be able to apply safety guidelines relevant to shop standards.

Unit Outcomes for Criterion Based Evaluation:

The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: General OSHA Information

Outcomes: Upon completion of this unit, the student will be able to successfully describe the purpose of the Occupational Health & Safety Administration.

- Students will be able to state the purpose of the OSHA Act.
- Students will be able to list the function of OSHA.
- Students will describe the rights and responsibilities of employers and employees under the OSHA Act.

UNIT 2: Personal Protective Equipment

Outcomes: Upon completion of this unit, the student will be able to successfully demonstrate the proper use of Personal Protective Equipment.

- Students will be able to list the basic components of PPE and choose correct PPE for various situations.

- Students will outline the general requirements for general safety standards including blood borne pathogens.
- Students will be able to identify & minimize basic safety standards.
- Students will be able to demonstrate lock out-tag out.
- Students will demonstrate proper use of machine guarding.

UNIT 3: Recordkeeping and Compliance

Outcomes: Upon completion of this unit, the student will be able to successfully demonstrate the proper use of Records and Recordkeeping.

- Students will understand basic recordkeeping requirements.
- Students will demonstrate fire protection and fire safety practices/emergency plans.
- Students will be able to complete basic documents for accident causes and accident investigation.
- Students will understand various considerations in an emergency, designing and following an emergency plan.

UNIT 4: Health and Safety Programs

Outcomes: Upon completion of this unit, the student will be able to successfully demonstrate safe working practices and safety programs.

- Students will understand basic safety and health programs.
- Students will understand basic electrical safety for general industry.
- Students will understand basic workplace violence issues.
- Students will understand potentially hazardous situations including solvents and reactive chemicals.

Projects Required:

As assigned

Textbook:

Contact Bookstore for current textbook.

Attendance Policy:

Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:

The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:

Based on classroom occupancy.

Course Time Frame:

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[ARCHIVED CATALOG]

MEC3483 FLUID POWER COURSE PROCEDURE

MEC3483 FLUID POWER

3 Credit Hours

Student Level:

This course is open to high school and post-secondary level students.

Catalog Description:

MEC 3483 - Fluid Power (3 hrs.)

This course is an introduction to pressurized hydraulic components in power delivery and positioning systems. Students will use hydraulic pumps and motors and make hydraulic connections, measurements, and calculations to determine appropriate system components.

Course Classification:

Lecture/Lab

Prerequisites:

None

Controlling Purpose:

This course is designed to help the student increase their knowledge regarding fundamentals of fluid power systems.

Learner Outcomes:

Upon completion of the course, the student will be able to demonstrate proficiency specifically in hydraulic fluid power and in general all basic fluid power.

Unit Outcomes for Criterion Based Evaluation:

The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Hydraulic System Operating Concepts

Outcomes: Upon completion of this course students will be able to successfully utilize hydraulic schematic elements.

- Name and describe the various parts of a hydraulic circuit.
- Recognize and use hydraulic fluid power symbols.
- Understand the fluid mechanics principles critical to the operation of hydraulic systems.
- Apply basic formulas for the calculation of hydraulic horsepower and actuator speeds.

UNIT 2: Power Units

Outcomes: Upon completion of this course students will be able to successfully understand reservoir and pump functionality.

- Describe the function of each of the major parts of the power unit.

- Explain the operation of each of the common designs of fixed and variable displacement pumps.
- Correctly select a pump from a manufacturer's catalog given information on system load and expected performance.
- Correctly size the reservoir for the power unit of a hydraulic system.

UNIT 3: Control Valves

Outcomes: Upon completion of this course students will be able to successfully apply valve controls for hydraulic systems.

- Describe the design and operation of each of the pressure, flow, and directional control valves used in a hydraulic system.
- Explain the function of pilot and drain connections incorporated into hydraulic valves.
- Explain the operation of pressure compensation used to accurately control flow control valves.
- Correctly select control valves for use in a system given information on system load and expected operation.

UNIT 4: Actuators

Outcomes: Upon completion of this course students will be able to successfully understand actuator applications.

- Describe the design and operation of the three general types of actuators.
- Calculate the force and speed output of an actuator given component specifications and system flow rate and pressure.
- Explain the design and operation of actuator cushions.
- Correctly select actuators for use in a system, given information on system load and expected operation.

UNIT 5: Support Components and Materials

Outcomes: Upon completion of this course students will be able to successfully identify auxiliary components and their functions.

- Select conductors that are appropriate for the operating conditions of a given system.
- Describe the importance of a hydraulic system fluid and identify a fluid suitable for use in a given system.
- Describe the function of heat exchangers in a hydraulic system.
- Describe the function of boosters and accumulators in a hydraulic system.

UNIT 6: Typical Hydraulic Circuits and Circuit Design

Outcomes: Upon completion of this course students will be able to successfully identify specialized layouts for specific applications.

- Understand the operation of a variety of speed and force-control circuits as well as circuits controlling specific motion.
- Develop circuit designs and specifications based on speed, force, and motion outlined in hypothetical problems.
- Use schematic diagrams of hydraulically controlled equipment to determine speed, force, and motion capability and identify operational problems that may exist in system circuits.

UNIT 7: Laboratory

Outcomes: Upon completion of this course students will be able to successfully apply understanding of hydraulics in hands-on settings.

- Use computer simulation software to design, test and troubleshoot hydraulics and pressurized systems.
- Perform hydraulic connections, measurements and calculations to increase efficiency of hydraulic and pressurized systems.
- Demonstrate understanding of diagnosis and troubleshooting techniques of hydraulic systems.
- Integrate fluid power into other mechanical systems.

UNIT 8: Analysis of a Hydraulic Application

Outcomes: Upon completion of this course students will be able to successfully apply understanding of hydraulics in a real-world application.

- Prepare a report on a piece of equipment that uses a substantial amount of hydraulic power in its operation.
- Include a minimum of four references from technical and popular sources.
- Describe the equipment, its function, and where hydraulics is used in its operation.
- Show how circuit diagrams of the hydraulic applications, photographs and drawings of the equipment can be helpful in analyzing the report.
- Analyze and report why hydraulic power was used in the application instead of another power-transmission method.

Projects Required:

As assigned.

Textbook:

Contact Bookstore for current textbook.

Attendance Policy:

Students should adhere to the attendance policy outlined by the instructor in the course syllabus

Grading Policy:

The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:

Based on classroom occupancy.

Course Time Frame:

The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

Refer to the following policies:

402.00 Academic Code of Conduct

263.00 Student Appeal of Course Grades

403.00 Student Code of Conduct

Disability Services Program:

Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If a student has a disability which may impact work in this class which requires accommodations, contact the Disability Services Coordinator.

MEC3484 PRINCIPLES OF ELECTRICITY COURSE PROCEDURE

MEC3484 PRINCIPLES OF ELECTRICITY

3 Credit Hours

Student Level:

This course is open to students on the college level in either the freshman or sophomore year and to area high school vocational students.

Catalog Description:

MEC 3484 - Principles of Electricity (3 hrs.)

Students will learn and apply the fundamentals of electricity in the following; motor phasing, conductor sizing, wiring, single & three-phase power, conduit bending, and the use of ladder diagrams and test equipment to meet acceptable codes and basic electrical standards used in various scenarios and industry types.

Course Classification:

Lecture/Lab

Prerequisites:

None

Controlling Purpose:

This course is designed to help Students increase their knowledge regarding fundamentals of electricity.

Learner Outcomes:

Upon completion of the course, Students will be able to demonstrate a proficiency in basic electrical concepts.

Unit Outcomes for Criterion Based Evaluation:

The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Electricity Principles

Outcomes: Upon completion of this course students will be able to successfully demonstrate the use of terminology and principles used in the industry.

- Identify and describe the basic principles of electricity.
- List and describe common forms of electricity.
- Describe the fundamental properties of matter and atomic structure.
- Describe the properties of conductors, insulators, and semiconductors.
- Identify chemical elements that have special interest to the electrical field.
- Identify applications where the electrical properties of compounds are important.

- Describe common methods of electricity generation.

UNIT 2: Basic Electrical Types

Outcomes: Upon completion of this course students will be able to successfully describe the fundamental properties of energy.

- List and describe common types of voltage.
- Describe and Calculate common types of AC concepts.
- Describe and Calculate the common types of DC concepts.
- List and describe common types of current, current flow, power and circuits.
- Calculate power factor.
- Explain the function of resistance, conductors, and insulators in an electrical circuit.
- Preform and interpret electrical measurements using industry standard equipment.
- Describe the properties of heat and heat measurement.
- Describe the fundamental properties of light.

UNIT 3: Ohm's Law and the Power Formula

Outcomes: Upon completion of this course students will be able to calculate voltage, current, and resistance using Ohm's law.

- Explain the voltage/current relationship and the current/resistance relationship according to Ohm's law.
- Understand the power formula and its role in calculating power, voltage, and current as well as power/current relationship.
- Describe common applications of the power formula.

UNIT 4: Numbering Systems and Codes

Outcomes: Upon completion of this course students will be able to describe the function and operation of the decimal and binary numbering systems.

- Convert a binary number to a decimal number.
- Describe the function and operation of the binary coded decimal (BCD) system.
- Convert a BCD number to a decimal number.
- Describe the function and operation of color.

UNIT 5: Taking Standard Measurements

Outcomes: Upon completion of this course students will be able to successfully use proper measurement techniques

- Identify common measurement principles.
- Describe common procedure for taking voltage, current, resistance, temperature and speed measurement.
- List and describe common types of scopes and their operation.
- Describe common applications of scopes.
- Describe the operation and common applications of digital logic probes.

UNIT 6: Symbols and Print Reading

Outcomes: Upon completion of this course students will be able to successfully utilize and read symbols and prints.

- Interpret and understand electrical schematics.
- Describe the characteristics and function of power sources.
- Describe the characteristics and function of disconnects.
- Describe the characteristics and function of OCPDs.
- Describe the characteristics and function of contacts.
- Describe the characteristics and function of control switches.

- Describe the characteristics and function of relays.
- Describe the characteristics and function of timers.
- Describe the characteristics and function of contactors.
- Describe the characteristics and function of motor starters.
- Describe the characteristics and function of solenoids.
- Describe the characteristics and function of resistors.
- Describe the characteristics and function of thermistors.
- Describe the characteristics and function of capacitors.
- Describe the characteristics and function of diodes.
- Describe the characteristics and function of switching devices.
- Describe the characteristics and function of digital logic gates.
- Describe the characteristics and function of transformer and coils.
- Describe the characteristics and function of motors.
- Describe the characteristics and function of lights, alarms, meters, and wiring.
- Describe the function of symbols in process control and instrumentation drawings.
- Define and Describe the use of symbols on plans and drawings.

UNIT 7: Circuits and Motors

Outcomes: Upon completion of this course students will be able to successfully describe and preform maintenance on circuits, controls and motors.

- Describe a series/parallel connection and a series and parallel circuit.
- Calculate capacitance and inductance in any kind of circuit.
- Describe the function of batteries and solar cells in any kind of circuit.
- Calculate resistance, voltage, current, and power in any kind of circuit.
- Describe the relationship between torque, horsepower, and motor speed.
- List and describe common types of DC motors.
- Describe differences, and common types of single phase and three phase motors.

Projects Required:

As assigned.

Textbook:

Contact Bookstore for current textbook.

Attendance Policy:

Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:

The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:

Based on classroom occupancy.

Course Time Frame:

The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

Refer to the following policies:

402.00 Academic Code of Conduct

263.00 Student Appeal of Course Grades

403.00 Student Code of Conduct

Disability Services Program:

Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If a student has a disability which may impact work in this class which requires accommodations, contact the Disability Services Coordinator.

DISCLAIMER: THIS INFORMATION IS SUBJECT TO CHANGE. FOR THE OFFICIAL COURSE PROCEDURE CONTACT ACADEMIC AFFAIRS.

[ARCHIVED CATALOG]

MEC3492 PROGRAMMABLE LOGIC CONTROLLERS COURSE PROCEDURE

MEC3492 PROGRAMMABLE LOGIC CONTROLLERS

3 Credit Hours

Student Level:

This course is open to high school and post-secondary level students.

Catalog Description:

MEC3492 - Programmable Logic Controllers (3 hrs.)

The student will program a PLC interfacing it with three or more components in a system. Students will troubleshoot an automated system locating faults in programming and programming errors.

Course Classification:

Lecture/Lab

Prerequisites:

None

Controlling Purpose:

This course is designed to help the student increase their knowledge regarding fundamentals of Programmable Logic Controllers used in manufacturing.

Learner Outcomes:

Upon completion of the course, students will learn the theory of operation and selection of common industrial control components. Students learn to design, program, and troubleshoot PLC systems. An introduction to closed loop control systems is included.

Unit Outcomes for Criterion Based Evaluation:

The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

UNIT 1: Computers and Computer Programming

Outcomes: Upon completion of this unit, the student will be able to successfully understand basic programming concepts.

- Understand programming language commonly used in industry.
- Understand programming techniques commonly used in industry.
- List and describe interfacing principals for computers.
- Understand relay ladder logic including controllers, timers, and latch and unlatch relays.
- Understand digital logic interface.
- List and describe programming techniques as well as interfacing.
- Understand antilog I/O and digital logic.

UNIT 2: Software and Hardware

Outcomes: Upon completion of this unit, the student will be able to successfully understand common applications for PLCs.

- List and describe analysis techniques for systems.
- Understand common software codes.
- List and describe PLC's available for use in industry.
- Understand user defined function blocks and local and global variables.
- Understand Bit addressing and Byte addressing.

UNIT 3: Layout, Wiring, Troubleshooting and Implementation of PLC's

Outcomes: Upon completion of this unit, the student will be able to successfully understand how to set up PLCs.

- Wire and connect sensors, mechanical switches, and relays to a given PLC.
- Program PLC's to perform tasks as predicted.
- Troubleshoot PLC controlled systems.

UNIT 4: PLC Interface with Sensors

Outcomes: Upon completion of this unit, the student will be able to successfully understand how to interface PLCs.

- Understand position sensing as it interfaces with PLC's.
- Understand pressure sensing as it interfaces with PLC's.
- Understand timing and counting methods controlled by PLC's.

UNIT 5: Laboratory

Outcomes: Upon completion of this unit, the student will be able to successfully apply understanding of PLCs in a hands-on environment.

- Develop and troubleshoot a PLC integrated system.
- Program a PLC to interface with three or more components in a system.
- Troubleshoot software to locate and correct faults.

Projects Required:

As assigned.

Textbook:

Contact Bookstore for current textbook.

Attendance Policy:

Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

Grading Policy:

The grading policy will be outlined by the instructor in the course syllabus.

Maximum class size:

Based on classroom occupancy.

Course Time Frame:

The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance

education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

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Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If a student has a disability which may impact work in this class which requires accommodations, contact the Disability Services Coordinator.

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Appendix B

Letters of Support from Local Employers

ALLTITE

Robert Beltz
Alltite, Inc
1600 E Murdock St.
Wichita, KS 67214

19 April 2023

Kansas Board of Regents
Cowley College
125 S 2nd St.
Arkansas City, KS 67005

Dear Kansas Board of Regents,

This letter is to support the addition of a Wind Technology program at Cowley College. This program is needed locally to support the workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

Alltite has a goal to train 250 people in wind technology by 2026. This program will allow our students to attend school locally instead of travelling out of state to Texas, as is currently done. In addition to the initial training of these technicians they require renewal training every 2 years, creating a sustained audience of students for this program.

Wind energy is rapidly becoming a crucial component of the global energy mix, and it is vital that we have trained professionals who can design, install, and maintain wind turbines and other related technologies. By offering a wind technology program, Cowley College will be providing its students with the knowledge and skills needed to enter this growing field and contribute to a more sustainable future.

Not only will this program benefit the students themselves and our company, but it will also help to address a pressing need for skilled workers in the renewable energy sector. The demand for professionals in this field is only going to increase in the coming years, and Cowley College has a unique opportunity to prepare its students for the job opportunities that will arise.

In closing, we fully support the Wind Technology program at Cowley College and look forward to seeing it implemented in late 2023.

Sincerely,

Robert Beltz
VP Operations Alltite, Inc.
316-686-3010
Bob.beltz@alltite.com

NextEra Energy Resources
700 Universe Blvd
Juno Beach, FL 33408

Dear Kansas Board of Regents,

Cowley College offers a higher education to anyone who has the desire to continuously learn. Additionally, they also offer on-site courses at nine high schools in the area they serve. This makes education even more accessible to anyone who wants one. In pursuit of providing quality courses, Cowley College would like to offer a new wind technician program.

NextEra Energy Resources, LLC is not only the world's largest generator of renewable energy from the wind and sun– we are also a company that prides itself in the cultivation of students in STEM. Thus, we stand with Cowley College's decision to add this program.

NextEra Energy Resources believes in being a good neighbor, and there is no better way to adhere to that belief than backing a program that will enrich the lives of the future. Wind energy is one of the fastest-growing energy sources in the world and wind turbine service technicians are the second fastest growing U.S. job of the decade. Wind technicians provide a stable long-term career. With Kansas ranking in the top five in the U.S. for wind power; this program would serve as a pipeline for future wind technicians – many of whom would be able to gain employment right here in the state.

We aim to be good stewards to the communities we serve, both in how we generate clean energy and how we dispose of our generation facilities at the end of their useful lives. We frequently donate decommissioned turbine components to colleges and wind technician programs across the country to provide students with hands-on job training. In addition to providing wind turbines, we have gone to great lengths to invest in the next generation. Occasionally, we partner with local schools with wind technician programs and give them a glimpse of what it is like to work in renewable energy. These insightful programs are often coupled with education and career opportunities. We hope to provide this service to Cowley College as well.

Wind turbines are a reliable source of energy and can help displace fossil-fueled generation, such as oil and gas. Much like the students at Cowley College, wind energy is the future. Let them grow, together hand-in-hand.

Sincerely,

The NEER Kansas Development Team

Sumner County
Economic Development

Physical Address: 215 S. Washington, Wellington, Kansas 67152
Mailing Address: P. O. Box 279, Wellington, Kansas 67152
Office Phone Number: (620) 326-8779 Office Fax Number: (620) 326-6544
Email Address: scedc@co.sumner.ks.us
Website: www.gosumner.com

April 21, 2023

Kansas Board of Regents
1000 SW Jackson, Suite 1368
Topeka, KS 66612-1368

RE: Wind Turbine Program – Cowley College

Dear Sir or Madam,

I am writing on behalf of the Sumner County Economic Development Commission (SCEDC). SCEDC is in strong support of Cowley College's efforts to create a wind turbine/energy program at Cowley College, Sumner Campus.

Wind energy has incredible potential. The nation could be powered 10 times over with available wind resources, and existing solar potential provides more than 100 times our current energy needs. By teaching this curriculum at the Sumner Campus, Cowley College is continuing to provide jobs for the wind industry already present in Sumner County. Additional jobs, new revenues, rural economic development, and a new source of renewable homegrown energy will have a significant economic impact for Sumner County as well as the South-Central Region of Kansas.

SCEDC is happy to partner with the Workforce Alliance of South-Central Kansas to provide job fairs as well as interviews. We understand the value of creating these programs for a sustainable future.

Please do not hesitate to contact me with any questions. Thank you for your consideration in this matter.

Kindest regards,

Stacy L. Davis

Stacy L. Davis
Executive Director
Sumner County Economic Development Commission

SCEDC
Committed to Improving the Economy of Sumner County

Evergy Letter

Appendix C

Programs of Study

WIND ENERGY TECHNOLOGY (Technical Certificate A)		
COURSE NUMBER	**COURSE NAME**	**CREDIT HOURS**
	TECHNICAL REQUIREMENTS	
WND3660	Introduction to Wind Energy	3
WND3662	Field Safety and Experience	3
WND3661	Wind Technical Systems	3
INR3718	OSHA 10	1
MEC3483	Fluid Power	3
MEC3484	Principles of Electricity	3
MEC3492	Programmable Logic Controllers	3
TOTAL HOURS		**19**

KBOR Fiscal Summary for Proposed Academic Programs

CA-1a Form (2020)

Institution: _Cowley College__
Proposed Program: _Wind Energy Program

IMPLEMENTATION COSTS				
Part I. Anticipated Enrollment		Implementation Year		
Please state how many students/credit hours are expected during the initial year of the program?				
		Full-Time	Part-Time	
A. Headcount:		125	0	
Part II. Initial Budget		Implementation Year		
A. Faculty		Existing:	New:	Funding Source:
Full-time	#	$0	$0	
Part-time/Adjunct	#	$26,250	$23,625	Student tuition and fees, Cowley Budget
		Amount	Funding Source	
B. Equipment required for program		$5,000	Cowley College Budget	
C. Tools and/or supplies required for the program		$3,500	Cowley College Budget	
D. Instructional Supplies and Materials		$2,500	Donated from partner	
E. Facility requirements, including facility modifications and/or classroom renovations		$15,000	Cowley College Budget	
F. Technology and/or Software		$1,500	Donated from partner	
G. Other *(Please identify; add lines as required)*		$0		
Total for Implementation Year		$77,375	Cowley College Budget	

ONGOING COSTS				
Part I. Program Enrollment		Second and Third Years		
Please state how many students/credit hours are expected during the first two years of the program?				
		Full-Time	Part-Time	
A. Headcount:		125	--	
Part II. Ongoing Program Costs		First Two Years		
A. Faculty		Existing:	New:	Funding Source:
Full-time	#	$0	$0	
Part-time	#	$49,875	$0	Cowley College Department Budget
		Amount	Funding Source	
B. Equipment required for program		$0		
C. Tools and/or supplies required for the program		$0		
D. Instructional Supplies and Materials		$0		

E. Facility requirements, including facility modifications and/or classroom renovations	$0	
F. Technology and/or Software	$0	
G. Other *(Please identify; add lines as required)*		

Carl D. Perkins Funding
Eligibility Request Form

Strengthening Career and Technical Education for the 21st Century Act

CA-1c Form (2022)

Name of Institution	Cowley College
Name, title, phone, and email of person submitting the Perkins Eligibility application *(contact person for the approval process)*	Chris Cannon EMS Program Director and Department Chair 620-229-5985 chris.cannon@cowley.edu
Name, title, phone, and email of the Perkins Coordinator	Chris Cannon EMS Program Director and Department Chair 620-229-5985 chris.cannon@cowley.edu
Program Name	Wind Energy Technology
Program CIP Code	15.1704
Educational award levels and credit hours for the proposed request(s)	Certificate A – 19 Credit Hours
Number of concentrators for the educational level	New program
Does the program meet program alignment?	NA
How does the needs assessment address the occupation and the program *(provide page number/section number from the CLNA and describe the need for the program)*	The current program was not identified as a need at the last Local Needs Assessment, as our industry partner for this application was not present. The next CLNA will be updated to reflect the pressing local need for this program.
Justification for conditional approval: *(how will Perkins funds will be used to develop/improve the program)*	Perkins funding will be primarily used for faculty professional development.
Pursuant to Americans with Disabilities Act, the proposed program will be offered in a location or format is fully accessible, according to applicable ADA laws? *(Contact Board staff for technical assistance if there are questions regarding accessibility)*	Yes

Signature of College Official Michelle Schoon Date 4-20-2023

Signature of KBOR Official _____ Date _____

Kansas Promise
Eligibility Request Form

CA-1d Form (2022)

This application should be used for new programs (currently in the program approval process) or existing programs the institution would like reviewed for Kansas Promise eligibility.

Program Eligibility

Per statutory language (Section 28), a "promise eligible program" means any two-year associate degree program or career and technical education certificate or stand-alone program offered by an eligible postsecondary educational institution that is:

1) approved by the Board of Regents;
2) high wage, high demand or critical need; and
3) identified as a "promise eligible program" by the Board of Regents pursuant to K.S.A. 2021 Supp. 74-32,272:
    - Information Technology and Security
    - Mental and Physical Healthcare
    - Advanced Manufacturing and Building Trades
    - Early Childhood Education and Development

Section 29 (9d), states that the Board of Regents may designate an associate degree transfer program as an eligible program only if such program is included in:

1) An established 2+2 agreement with a Kansas four-year postsecondary education institution; or
2) An articulation agreement with a Kansas four-year postsecondary educational institution and is part of an established degree pathway that allows a student to transfer at least 60 credit hours from the eligible postsecondary educational institution to a four-year postsecondary education institution for the completion of an additional 60 credit hours toward a bachelor's degree.

Section 30 states an eligible postsecondary educational institution may designate an additional field of study to meet local employment needs if the promise eligible programs within this field are two-year associate degree programs or career and technical education certificate or stand-alone programs approved by the Board of Regents that correspond to jobs that are high wage, high demand, or critical need in the community from one of the following fields:

1) Agriculture;
2) Food and Natural Resources;
3) Education and Training;
4) Law, Public Safety, Corrections, and Security; or
5) Distribution and Logistics

Name of Institution	Cowley College
Name, title, and email of person responsible for Academic program	Chris Cannon EMS Program Director and Department Chair 620-229-5985 chris.cannon@cowley.edu
Name, title, and email of Financial Aid contact	Lena Spencer Director of Financial Aid 620-441-2701 lena.spencer@cowley.edu

Kansas Promise
Eligibility Request Form

CA-1d Form (2022)

Information Technology and Security				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date

Mental and Physical Healthcare				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date

Advanced Manufacturing and Building Trades				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date
15.1704	Wind Energy Technology	Y	Certificate	8/1/23

Early Childhood Education and Development				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date

College Designated Field of Study:				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date

**If any programs are claiming "critical need" status, please provide supporting documentation:

Signature of College Official Michelle Schoon Date 4-20-2023

Signature of KBOR Official_____ Date_____

Special Note to Kansas Independent Colleges:
Please carbon copy the KICA contact below when submitting this application to the Kansas Board of Regent office:

Matt Lindsey, President KICA
matt@kscolleges.org

Last updated: 8/17/2022