



**COWLEY COLLEGE
& Area Vocational Technical School**

COURSE PROCEDURE FOR

**FLOUR MILLING INTERNSHIP
MLL3596 3 Credit Hours**

Student Level:

This course is open to students in high school or post-secondary students.

Catalog Description:

MLL3596-FLOUR MILLING INTERNSHIP (3 hrs) At the completion of Field Internship, the milling technician student will be able to comprehend, apply and evaluate milling field information while demonstrating technical proficiency in all skills and behaviors necessary to fulfill the role as an entry-level milling technician in a production flour mill.

Prerequisites:

None

Controlling Purpose:

This course is designed to help the student apply their knowledge, skills, and professional behaviors in a working mill to demonstrate a working ability of the four mill industry.

Learner Outcomes:

Upon completion of the course, the student will comprehend, apply, and evaluate relevant information while demonstrating technical proficiency in all skills and behaviors necessary to fulfill the role as an entry-level flour mill worker.

Units Outcomes and Criterion Based Evaluation Key for Core Content:

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

Evaluation Key:

- A = All major and minor goals have been achieved and the achievement level is considerably above the minimum required for doing more advanced work in the same field.
- B = All major goals have been achieved, but the student has failed to achieve some of the less important goals. However, the student has progressed to the point where the goals of work at the next level can be easily achieved.
- C = All major goals have been achieved, but many of the minor goals have not been

achieved. In this grade range, the minimum level of proficiency represents a person who has achieved the major goals to the minimum amount of preparation necessary for taking more advanced work in the same field, but without any major handicap of inadequacy in his background.

- D = A few of the major goals have been achieved, but the student's achievement is so limited that he is not well prepared to work at a more advanced level in the same field.
- F = Failing, will be computed in GPA and hours attempted.
- N = No instruction or training in this area.

UNIT 1: PROGRAM BEHAVIORAL OBJECTIVES						
Outcomes: The Milling technician student must exhibit appropriate behaviors in the following areas:						
A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Integrity
						Empathy
						Self-Motivation
						Appearance and personal hygiene
						Self-confidence
						Communications
						Time management
						Teamwork and diplomacy
						Respect
						Careful delivery of service

UNIT 2: INTRODUCTION & ORIENTATION TO THE FIELD INTERSHIP SERVICE

Outcomes: Student must be able to identify facility equipment and milling processes, understand regulatory/departmental/company rules as they apply to the facility, regulatory safety procedures, production documentation, and facility company policies, and become familiar with the individual locations of emergency equipment within the facility.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Describe a typical manual start up, shut down procedure for a processing unit.
						Distinguish between materials handling and processing issues.
						Develop and interpret granulation curves, cumulative ash curves and step charts.
						Identify key regulatory agencies and their impact on sanitation practices in milling.
						Demonstrate significant activities associated with Integrated Pest Management.

UNIT 3: Task Responsibilities/Team Activities

Outcomes: At the completion of phase 2 of the field internship experience, the milling technician student will be able to practice team cooperation in flour milling production to include communication with co-workers, facilitate appropriate processing equipment operation, and be a successful member of production operations.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Demonstrate successful communication between the student and facility management.
						Demonstrate appropriate and accurate operation, location, maintenance and various uses of processing equipment.
						Decide upon a course of action and implement a team approach to carrying out a production plan or troubleshooting production issues.
						Given the opportunity, demonstrate knowledge of proper skill techniques and identify all six major systems that make up the gradual reduction process and how they interact.
						Demonstrate a knowledge base consistent with information presented to the student to this point in the field internship experience.
						Explain and identify general roller mill construction and operation.
						Perform measures and assist in meeting goals for break and reduction roll grinding.

UNIT 4: Team Leader Responsibilities/Team Coordination

Outcomes: At the conclusion of phase 3 of the students field internship experience, the student will be able to identify and perform responsibilities related to the six major systems in gradual reduction process. Students will be able to comprehend, apply and evaluate operations information while demonstrating technical proficiency in all skills and behavior necessary to fulfill the role as an entry-level milling technician in a flour production facility.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Demonstrate sifter construction and operation processes knowledge, including performance measures for efficient sifting and mill balance.
						Demonstrate purifier construction and operation process knowledge, including performance measures for effective purifier operation and mill balance.
						Demonstrate and explain duster or finisher construction and operation including key performance measures.
						Demonstrate and explain the significance of primary and secondary break systems and stock destination.
						Demonstrate effective communication between the student and facility management, co-workers, and other industry personnel, either orally, in writing, or by other facility communications formats.
						Demonstrate the ability to accurately complete all the necessary reports associated with the milling process.
						Successfully complete the goals of the Sizing Systems, incoming material source and stock destination.
						Explain and identify how Sizings and purification systems interact with each other.
						Successfully complete the goals of the Midds Reduction System, incoming material source and stock destination.
						Identify alternative grinding methods for the Midds Reduction System, how and why they are used.
						Successfully complete the goal of the residue and low grade systems, incoming material source and stock destination.
						Explain the relationship between mill environments, processing characteristics and finished product quality.
						Demonstrate what is meant by mill balance and expected values of feed and flour from various milling systems.

						Identify mill co-products by particle size and origin.
						Demonstrate integrity, self-motivation, self-confidence, appropriate appearance and personal hygiene, teamwork, diplomacy, appropriate communication, time management, respect, empathy, patient advocacy and careful delivery of service consistent with affective objectives outlined in the Cowley affective evaluation.

Projects Required:

As assigned

Textbook:

Contact Bookstore for current textbook.

Materials/Equipment Required:

Various wheat-based products readily available to consumers.

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 Timeframe:

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.