



**COWLEY COLLEGE  
& Area Vocational Technical School**

**COURSE PROCEDURE FOR**

**WHEAT FLOUR MILLING II  
MLL3593 3 Credit Hours**

**Student Level:**

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

**Catalog Description:**

**MLL3593 – WHEAT FLOUR MILLING II (3 hrs)** During this second of two wheat flour milling classes, students will be introduced to the Sizing System, Midds Reduction System, tailings and Low Grade System, germ separation, impact milling and detachers, fans, filters, and the mill environment.

**Prerequisites:**

MLL3592 WHEAT FLOUR MILLING I

**Controlling Purpose:**

This second course of two is designed to help the student increase their knowledge regarding various systems and processing found in the flour mill that occur after the initial wheat preparation.

**Learner Outcomes:**

Upon completion of the course, the student will be able to demonstrate knowledge of the associated equipment involved in Sizings, Midds reduction, tailings and low grade, germ separation, impact milling and detachers, fans, filters, and the mill environment.

**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

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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: The Sizing System

Outcomes: Upon completion of this unit, the students will be able to successfully explain the value and importance of the Sizing System.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Identify goal and operation parameters of the Sizings System.
						Explain application of corrugations to Sizings operation.
						Define methods of control for Sizings operation and explain its importance in mill operation.

### UNIT 2: The Midds Reduction System

Outcomes: Upon completion of this unit, the students will be able to successfully explain the value and importance of the Midds Reduction System.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Identify goal and operation parameters of the Midds Reduction System.
						Explain application of pin mill and impact machine operation to Midds reduction.
						Define methods of control for Midds reduction and explain its importance in mill operation.

### UNIT 3: The Residue and Low Grade System

Outcomes: Upon completion of this unit, the students will be able to define and explain mill yield and flour quality principles related to the Residue and Low Grade System.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Explain source of materials for both Residue and Low Grade Systems and how the source they may be related to mill yield and flour quality.
						Define by products generated by Residue and Low Grade System and their relationship to mill yield and flour quality.
						Explain how the Residue System, Low Grade System and the Break System are connected.

### UNIT 4: Mill Balance and Control

Outcomes: Upon completion of this unit, the students will be able to successfully identify the key streams and operational expectations related to yield measures in the flour mill.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Identify key streams and expectations for successful operation.
						Indicate use of senses for monitoring as a walking tour of the process is conducted.
						Explain different yield measures and their limitations to mill operation.

#### **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.

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**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.