



**COWLEY COLLEGE
& Area Vocational Technical School**

COURSE PROCEDURE FOR

**WHEAT FLOUR MILLING I
MLL3592 3 Credit Hours**

Student Level:

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

Catalog Description:

MLL3592 – WHEAT FLOUR MILLING I (3 hrs) During this first of two wheat flour milling classes, students will be introduced to the gradual reduction process, roller mills, sifters and sieves, break systems, dusters, finishers, and purification systems.

Prerequisites:

None

Controlling Purpose:

This first course of two is designed to help the student increase their knowledge regarding the gradual reduction process.

Learner Outcomes:

Upon completion of the course, the student will be able to demonstrate a knowledge of the gradual reduction process and associated equipment, including roller mills, sifters and sieves, break systems, dusters, finishers, and purifications systems.

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: Principles of the Gradual Reduction Process

Outcomes: Upon completion of this unit, the students will be able to successfully identify the six major systems of the gradual reduction process and associated goals.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Identify six major systems of the gradual reduction process.
						Explain general operation goals of the systems in the gradual reduction process.
						Identify major pieces of equipment used in the gradual reduction process.

UNIT 2: Roller Mills

Outcomes: Upon completion of this unit, the students will be able to successfully define and explain the operation of the roller mill and demonstrate performance measures.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Define key roller mill components.
						Explain operation of the roller mill.
						Identify roller mill performance measures.

UNIT 3: Sifters and Sieves

Outcomes: Upon completion of this unit, the students will be able to define and explain the value of sifter and sieves in the mill and demonstrate performance measures.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Define key sifter and sieve construction.
						Explain importance of sieve stack details.
						Identify sifter performance measures and their interpretation.

UNIT 4: The Break System

Outcomes: Upon completion of this unit, the students will be able to successfully identify the purpose and operation of the primary and secondary break system, as well as the break release.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Explain the purpose and operation of the break system.
						Explain the significance of the primary and secondary break system.
						Define break release and explain its importance in mill operation.

UNIT 5: The Purification System

Outcomes: Upon completion of this unit, the students will be able to successfully define the goals and operations of the purification system, explain its significance, and identify measures of performance and control.

A	B	C	D	F	N	Specific Competencies
						Demonstrate the ability to:
						Define the goals and operation of a purifier.
						Explain purifier's significance in milling various classes of wheat.
						Define measures of purifier performance and control.

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.