

COURSE INFORMATION:

Course: FPT 101
Course Title: Wood and Pulp Processing
Lecture Hours/Week: 3.0
Lab Hours/Week: 0.0
Credit Hours/Semester: 3.0

[DL Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION:

This course includes an introduction to the characteristics of wood and pulping fibers, wood and chip handling, mechanical and chemical pulp processing, the recovery loop of the kraft pulping process, stages of pulp bleaching and standard pulping terminology.

COURSE COMPETENCIES:

Module 1

- Acquire a basic knowledge of pulping terminology
- Describe the characteristics of wood
- Describe the characteristics of pulping fibers
- Understand industrial safety as it relates to a paper mill

Module 2

- Demonstrate a basic knowledge of wood and chip handling
- Identify the basic steps in mechanical and chemical pulp processing

Module 3

- Acquire a basic knowledge of the kraft process recovery loop
- Understand the fundamentals of pulp bleaching

MINIMAL STANDARDS/PERFORMANCE OBJECTIVES:

Module 1

Students will know the basic terminology used in a paper mill to describe major pieces of equipment and processes. Students will know the important properties

of woods and pulping fibers used as raw materials in the papermaking process.

Module 2

Students will know the basic techniques used for handling of wood and wood chips within a papermaking plant. The students will be able to identify the basic mechanical and chemical processes used to convert wood and chips to pulp and will understand the basic parameters of each process.

Module 3

Students will be able to describe the operation of the kraft process recovery loop, including key parameters of each sub-process. Students will be familiar with the various bleaching techniques used in a paper mill, including a knowledge the effects of various bleaching processes on the properties of the final product as well as the environmental impact of each process.

COURSE REQUIREMENTS:

Students are responsible for attaining competencies through completion of the following course requirements:

ATTENDANCE

Students will be bound by the policies stated in the York Technical College Student Handbook. Students must attend 80% of the hours assigned the class for a semester to receive credit for the course. In case a student does miss a class, the student is responsible for obtaining the material that was covered during the absence. If a student is aware that a class will be missed, then the student should notify the instructor at the earliest possible date.

An exception to this policy will be made for absences due to scheduled work at Bowater such as mandatory overtime or special work schedules required to support maintenance activities during a shutdown

COMPLETION OF ALL HOMEWORK AND READING ASSIGNMENTS

Students are expected to complete all homework and reading assignments, graded or ungraded.

PARTICIPATION IN CLASS DISCUSSIONS

Students are expected to participate during class, including question and answer periods that follow class presentations that may be made by other students or

guest speakers.

COMPLETION OF ALL ASSESSMENTS/TESTS.

Students are expected to complete all assessments and tests. If a student misses a test or assessment because of illness or urgent emergency, it is the responsibility of the student to notify the instructor prior to the class period, or at the earliest possible date. At that time a new date for a make up assessment/test can be scheduled. Students with unexcused absences during an assessment or test will be allowed to take a make it up at the discretion of the instructor.

ACADEMIC HONESTY:

"York Technical College adheres to the South Carolina TECH Student Code, approved by the State Board for Technical and Comprehensive Education on March 13, 1974 (revised last April 25, 1984). Copies of this code are available in the Library and from Student Services. ...Any student caught cheating or involved in any other academic dishonesty will be given a grade of zero and will be subject to further disciplinary action."

EVALUATION STRATEGIES/GRADING:

The grading scale will be as follows:
(See addendum or instructor for specific details)

Grade	Points
A	90 - 100.0
B	80 - 89.9
C	70 - 79.9
D	60 - 69.9
F	00 - 59.9

EVALUATION METHOD

TOTAL POINTS

End-of- Module Tests	(3, equally weighted)	60%
Final Examination		20%
Class Participation		20%

ENTRY LEVEL SKILLS:

There are no special skills required for entrance into this course.

PREREQUISITES:

None

CO-REQUISITES:

None

METHODS OF INSTRUCTION:

This course consists 48 hours of class instruction. The class instruction includes lectures, demonstrations, discussions, and tests. The lectures are given while drawing on the chalkboard, using overhead projections, PowerPoint presentations, CD-ROM based CAI, on-line instruction, or videotapes.

TOPIC/CONTENT OUTLINE: (based on 12 week course cycle)

<u>Week #</u>	<u>Topic</u>
1	Basic Paper Mill Terminology
2	Physical properties of Wood/Pulp
3	Review and Module 1 Test
4	Wood and Chip Handling in the plant
5	Mechanical Pulp processing
6	Chemical Pulp Processing
7	Review and Module 2 Test
8	Kraft Process Recovery Loop
9	Bleaching Processes
10	Environmental Issues in pulp manufacture
11	Review and Module 3 Test
12	Review and Final Exam