

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: CURRENT TOPICS IN PULP AND PAPER
CODE NO.: PPE 364-2 SEMESTER: SIX
PROGRAM: PULP AND PAPER ENGINEERING TECHNOLOGY
AUTHOR: ADAM SUGDEN/LORY VANDERZWET
DATE: MARCH 1996 PREVIOUS OUTLINE DATED: MAY 1991

APPROVED:

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Date ¹

CURRENT TOPICS IN PULP & PAPER

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TOTAL CREDIT HOURS: 32**PREREQUISITE(S):** None**I. PHILOSOPHY/GOALS:**

This is a seminar course given by the students together with guest speakers to add depth and breadth to the students' studies. Students will prepare and present a seminar on a topic of special interest, with particular emphasis being given to those subject areas not covered elsewhere in the program.

II. STUDENT PERFORMANCE OBJECTIVES:

The primary objective of this course is to give students practical experience in researching, preparing and presenting seminars on a chosen subject of current interest to the pulp and paper industry. Since, upon graduation, the student will, at some time, be required to present similar seminars to their colleagues, peers or the public, the experience gained from this course will prove useful.

A secondary objective of the course is to provide all students with current information on topics that are of immediate interest and concern to the pulp and paper industry. Therefore, the material presented must be based on current reading from technical journals, books and other publications.

NATURE OF PRESENTATION:

This course will be based on one two-hour period each week. Each period will be used for the presentation of seminars, either by students or by invited speakers. Students will submit a written report on their seminar topic within one week of oral presentation.

Each student will prepare a brief written summary of each seminar presentation. These summaries must be available to all participants in the course before the seminar is given. In this way, all students will have access to the basic information to be presented and as such will be prepared to participate more fully in the seminar discussion.

The required format for each seminar will be handed out at the beginning of Semester 6. Students should be aware of the requirement to follow this format in all cases.

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III. TOPICS TO BE COVERED:

While it is not the intent of this outline to limit the nature of topics to be covered in this course, the following list presents a number of topics that are considered to be valid areas from which to draw seminars.

THE INDUSTRY TODAY

- Technological changes in the pulp and paper industry
- Economic trends in the industry
- Social changes in the industry

RAW MATERIAL CHANGES

- Increasing use of hardwoods
- Use of non-wood fibres
- Use of high-yield pulps in papermaking
- Increasing use of secondary fibre

CHEMICALS

- Additives to improve pulping properties
- Additives to improve paper properties

NON-TRADITIONAL PULPING PROCESS

- Organosolv process
- OPCO process
- Future pulping processes

MACHINE CLOTHING

- New products, materials, designs, performance
- Alternative systems

DRY FORMING OF PAPER

- Development, scope, properties
- Implications for the paper industry

PROCESS AUTOMATION

- Current and future trends
- Capabilities of systems
- Equipment and costs
- Effects on and returns to the industry

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III. TOPICS TO BE COVERED: (cont'd)

WATER USE AND POLLUTION CONTROL

- Purification needed,
- Reuse in "closed" mills, problems, advantages
- Treatment and monitoring

THE FUTURE OF PAPER

- Impact of electronic media
- Costs
- Alternate products, e.g., plastics
- New products requiring paper

IV. METHOD OF EVALUATION:

The student's performance in this course will be graded as follows:

1. Prepare and present one seminar based on a relevant subject of interest. - Total marks = 25
2. Prepare an appropriate written report on the seminar subject. - Total marks = 30
3. Final exam based on student seminars, guest lecturers and any other materials presented during the course. - Total marks = 30
4. Attendance and participation for all sessions. One mark will be deducted for each session missed - Total marks = 15

TOTAL MARKS = 100

Letter grades will be assigned as follows:

A+ = >90% A = 80-89% B = 70-79% C = 60-69% R = < 60%

NOTE:

Students having a final standing of "R" will be required to repeat the course in order to obtain credit. There are no supplemental tests given.

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V. REQUIRED STUDENT RESOURCES:

Since this is a seminar course, there is no textbook assigned.

VI. SPECIAL NOTES:

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.