

MPS: Environmental and Resource Engineering Process and Environmental Systems Engineering

The Faculty of Paper and Bioprocess Engineering offers a Master of Professional Studies (Environmental and Resource Engineering) in the study area of Process and Environmental Systems Engineering. The MPS degree is intended for students who:

- have a B.S. degree in a field other than Paper Science and Engineering and wish to “retool” to this field;
- have worked in the industry and wish to return for a professional degree.

The PBE Faculty has identified these two groups as potential growth areas for the program. The MPS degree program will serve primarily the pulp, paper, and supplier industry by providing engineers and scientist, some perhaps with nontraditional backgrounds. The courses are designed to meet both personal career objectives and industry needs. Mill-oriented projects are planned to meet goals that are of value to the industry. Students who already have a B.S. degree in Paper Science and Engineering should enter M.S. program in Environmental and Resource Engineering.

Requirements

The entering requirements for this area of study are as given in the catalog (p. 39). The MPS degree in this area will require a total of 30 credits distributed as follows:

PSE Core Courses	10 credits
Principles of Pulping and Bleaching (ERE 670)	
Paper Properties (ERE 677)	
Papermaking Processes (ERE 679)	
Engineering Courses	9
Mass & Energy Balances (Required)	
Transport Phenomena (Fluid Mechanics, Heat/Mass Transfer)	
Process Dynamics & Control	
Thermodynamics	
Engineering Design	
Application Elective Courses	5-8
Colloid and Surface Science	
Wet-End Operations	
Coating and Converting	
Recycling	
Environmental Engineering	
Polymer Science	
Professional Experience/Synthesis Course	3-6 credits
TOTAL	30 credits

Description

The purpose of the MPS program is to provide students with a graduate degree in the practice and profession of paper science and engineering. Students can expect to be trained broadly in the skills, science and engineering of the manufacture processes and systems of pulp, paper, chemical and allied products. The program emphasizes breadth in training and skills essential to an engineering professional by requiring coursework in technology, engineering and application areas. This is in contrast to the Master of Science degree which is a more intensive course of study into the fundamental principles of the technology and/or the applied science of paper.