

FNR 42500

Secondary Wood Products Manufacturing

Objective of Course:

The course objective is to familiarize the student with basics of secondary hardwood products manufacturing: organization, raw materials, machinery, plant layout, production methods, machining, finishing, and industrial engineering techniques.

Textbooks:

Furniture Manufacturing Equipment. 1987, B.L. Clark, T.A. Ekwall, C.T. Culbreth and R. Willard. North Carolina State University, Department of Industrial Engineering.

Furniture Manufacturing Processes. 1981, A.L. Prak and T.W. Myers. North Carolina State University, Department of Industrial Engineering.

Furniture Manufacturing in the New Millenium. 1998. K.J. Susnjara. Thermwood Corporation.

Contact instructor about ordering.

Class attendance:

It is the student's responsibility to know what was covered (including notes, handouts and homework) in class during any absence. Contact instructor if you anticipate extended absence.

Grading:

	Undergraduate Students <u>% of grade</u>	Graduate Students <u>% of grade</u>
Plant Visit Reports	30	30
Research Paper		10
Class Participation		10
Three one-hour exams	30	30
Weekly quizzes	10	10
Final Exam	30	10

Student grades, status and progress can be discussed at any time upon request of either the student or the instructor. Grade appeal procedures are available by university policy.

WARNING: No laboratory assignments will be accepted late and no make-up exams will be given unless arrangements are made with the instructor prior to the due date of the assignment or exam.

Cheating:

Cheating on quizzes and exams and plagiarism will not be tolerated and will be dealt with according to the university policy. The student is obligated to solve home problems on his own; however, assistance (working together) is legal and sometimes necessary for learning efficiency. But sloppy repeat of another person's errors will not be overlooked.

Research Paper and Classroom Presentation (graduate students only):

A list of research topics will be provided from which each graduate student will select one for a research paper. Students may also suggest a topic in which they are personally interested. This paper must be type written and is expected to be of very high quality. The research paper will provide the basis for a 20-minute classroom presentation. Audiovisual aids are expected to be used to assist audience understanding.

Instructor's Biography

Dr. Rado Gazo joined the Purdue University faculty in July 1997 as an assistant professor of wood processing/industrial engineering. Dr. Gazo is from Slovakia, where, before attending graduate school, he worked in a sawmill and a furniture company. He received his Master of Science degree in economics and management of wood products industry in 1989.

Before arriving to the U.S., Dr. Gazo gained an experience working in wood products companies in several European countries including Finland, Germany, Russia and Bulgaria. In the U.S., Dr. Gazo earned a Ph.D. in wood processing/industrial engineering at Mississippi State University in 1994. Before joining Purdue University, he worked as a researcher at the Louisiana Forest Products Laboratory and as a visiting scientist at the New Zealand Forest Research Institute.

At Purdue University, Dr. Gazo teaches several classes including Properties of Wood and Secondary Wood Products Manufacturing. When not in a classroom, Dr. Gazo conducts research and extension activities in value-added wood products manufacturing and industrial engineering areas. He also actively works in three international professional societies within his field, where he serves or chairs several committees.

Outside the office, Dr. Gazo enjoys running, swimming, skiing, mountain biking, traveling, camping, fishing and four-wheeling.

Plant Visit Reports:

1. Six to eight plant visits will be organized during the semester. A brief report (5-7 pages) will be required after each plant visit. It will always be due one week after the visit.
2. The report and associated drawings are expected to be of professional quality.
3. Suggested outline of the report:
 - o Cover page (company name and location, date of visit, student's name)
 - o Executive summary
 - o Introduction (brief history, year established, reconstructed, number of employees, sales, owner's and/or manager's name, work schedule, etc.)
 - o Body of the report (raw materials used, storage, production, main machines - names, speeds, capacities, finishing, products made, storage of final products)
 - o Conclusion (future plans, safety, general appearance, own observations, etc.)
 - o Enclosures (material flow, plant layout drawings)
4. Grading of the report:

o Completeness	20%
o Accuracy	20%
o Flowchart	20%
o Writing Quality	20%
o Grammar and Spelling	20%