Principles of Packaging

PKG3001 Section 1478
Class Periods: MWF | Period 3 | 9:35 A.M. – 10:25 A.M.
Location: ROG 129
Academic Term: Fall 2025

Instructor
Dr. William Pelletier
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(352) 294-6701
Office Hours: MWF 10:30 A.M. – 11:30 A.M. & and by appointment
Office Location: 101 Frazier Rogers Hall

Teaching Assistant
TBD

Course Description
Focuses on the materials, uses, functions and production processes of packaging. Topics include an industry overview and related applications as well as the historical, societal and technological drivers of packaging and how end-users decide on the product/package combination they use for their product and the impact these choices make on the product's market success. *3 Credits*

Course Co-Requisites
N/A

Course Objectives
Students, upon completing this course, will be able to:

1. Explain the critical role of packaging systems.
2. Analyze the packaging industry, current and future trends.
3. Explain packaging materials in use.
4. Describe converting operations for packaging materials.
5. Form an opinion on the environmental issues related to packaging and society.
6. Understand packaging laws and regulations.

This course will help students develop their ability to: 2. apply both analysis and synthesis in the engineering design process, resulting in designs that meet desired needs; 3. communicate effectively with a range of audiences; 4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts; 5. function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty; 7. recognize the ongoing need for additional knowledge and locate, evaluate, integrate, and apply this knowledge appropriately.
The course will consist of three (3) lectures per week, quizzes, projects and examinations.

Materials & Suppy Fees
N/A

Required Computer

Recommended Computer Specifications:	`https://it.ufl.edu/get-help/student-computer-recommendations/`
HWCoE Computer Requirements:	`https://www.eng.ufl.edu/students/advising/fall-semester-checklist/computer-requirements/`

Relation to Program Outcomes (ABET)

Outcome		Coverage*
1.	An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	
2.	An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	Low
3.	An ability to communicate effectively with a range of audiences	Medium
4.	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	Medium
5.	An ability to function effectively on a team whose members together provide leadership, create a collaborative environment, establish goals, plan tasks, and meet objectives	Low
6.	An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	
7.	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies	Medium

* Coverage is given as high, medium, or low. An empty box indicates that this outcome is not covered or assessed in the course.

Required Textbook & Software

No Required Texbook - Course Notes Developed by the Instructor

Optional Textbook

Soroka, Walter. 2014. Fundamentals of Packaging Technology 5th Edition. Institute of Packaging Professionals, Naperville, IL, U.S.A. 748 p.

Course Schedule (subject to change)

			M	**No Class**				M	Glass Packaging
Week 1	18-Aug	22-Aug	W	**No Class**	Week 9	13-Oct	17-Oct	W	Glass Packaging
			F	Syllabus				F	**Homecoming**
			M	Packaging Functions				M	Review
Week 2	25-Aug	29-Aug	W	Packaging Functions	Week 10	20-Oct	24-Oct	W	Introduction to Polymers
			F	Packaging Functions				F	**Exam 2**
			M	**Labor Day**				M	Introduction to Polymers
Week 3	01-Sep	05-Sep	W	Packaging Functions	Week 11	27-Oct	31-Oct	W	Shaping Plastics
			F	Graphic Design				F	Shaping Plastics
			M	Graphic Design				M	Shaping Plastics
Week 4	08-Sep	12-Sep	W	Graphic Design	Week 12	03-Nov	07-Nov	W	Plastic Applications
			F	Printing & Decorating				F	Plastic Applications
			M	Printing & Decorating				M	Corrugated Fiberboard
Week 5	15-Sep	19-Sep	W	Printing & Decorating	Week 13	10-Nov	14-Nov	W	Corrugated Fiberboard
			F	Review				F	Corrugated Fiberboard
			M	Paper & Paperboard				M	Review
Week 6	22-Sep	26-Sept	W	**Exam 1**	Week 14	17-Nov	21-Nov	W	**Exam 3**
			F	Paper & Paperboard				F	**Student Presentations**
			M	Paper & Paperboard				M	**Thanksgiving**
Week 7	29-Sep	03-Oct	W	Paperboard Cartons	Week 15	24-Nov	28-Nov	W	**Thanksgiving**
			F	Paperboard Cartons				F	**Thanksgiving**
			M	Metal Cans & Containers				M	**Student Presentations**
Week 8	06-Oct	10-Oct	W	Metal Cans & Containers	Week 16	01-Dec	05-Dec	W	**Student Presentations**
			F	Metal Cans & Containers				F	**Reading Day**

Attendance Policy, Class Expectations, and Make-Up Policy

- Attendance (on time) at lectures is expected from all students at all times. Attendance accounts for 10% of your final grade and will be monitored using a sign-in sheet. Students will be warned if they are late at several occasions. Following a second warning, late attendances will be counted as missed lectures.
- Specific directives will be provided for each assignment, but, in all cases, they will have to be submitted online through Canvas. In most instances, homework assignments and project reports must be turned in before class begins. Assignments submitted late, before 4:00 P.M. on the day they were due, will be marked down by 10% of their total. Assignments submitted late before 4:00 P.M. on the following day will be marked down by 50% of their total (assignments must be submitted through Canvas). Assignments will not be accepted after 4:00 P.M. on the day following the due date. **For all online submissions, it is the student's responsibility to ensure that the correct file is uploaded on Canvas. A penalty may be applied if an incorrect document is uploaded**. If technical difficulties with Canvas were to occur, students can email the file to wpelletier@ufl.edu to avoid a late submission (if you email a copy , also upload a "late" copy in Canvas when possible). Deadlines for assignments may change, please always follow directives provided for each assignment in Canvas.
- No make-up exams or quizzes will be given except for valid medical reasons or unless prior arrangements have been made.
- Exams will be taken in-person during our regular lecture time
- Excused absences must be consistent with university policies in the undergraduate catalog (link provided in the next item) and require appropriate documentation.
- Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click here to read the university attendance policies: `https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/`

Evaluation of Grades

Assignments	Percentage of Final Grade
Exams (tentative dates: 9/24, 10/24 & 11/19 at 9:35 A.M.)	60% (20% each)
Homework Assignments, Quizzes & Discussions	15%
Project & Presentation	15%
Attendance	10%
TOTAL	100%

Grading Policy

Percent	Grade	Grade Points
[90 – 100%]	A	4.00
[87 – 90%[	A-	3.67
[84 – 87%[	B+	3.33
[80 – 84%[	B	3.00
[77 – 80%[	B-	2.67
[74 – 77%[	C+	2.33
[70 – 74%[	C	2.00
[67 – 70%[	C-	1.67
[64 – 67%[	D+	1.33
[60 – 64%[	D	1.00
[57 – 60%[	D-	0.67
[0 – 57%[	E	0.00

More information on UF grading policy may be found at:
`https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx`

Academic Policies & Resources
To support consistent and accessible communication of the university-wide student resources, Academic Policies & Resources are available online at `https://go.ufl.edu/syllabuspolicies`

Commitment to a Positive Learning Environment
The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University's core values.
If you feel like your performance in class is being impacted, please contact your instructor or any of the following:

- Your academic advisor or Undergraduate Coordinator
- HWCoE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
- Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@ufl.edu