

Distribution and Transport Packaging

PKG4008 Section 3650/WEB1

Class Periods: MWF | Period 3 | 9:35 A.M. - 10:25 P.M.

Location: ROG 110/Online

Academic Term: Spring 2021

Instructor:

Dr. William Pelletier

wpelletier@ufl.edu

(352) 294-6701

Office Hours: Online/TBD

Office Location: 101 Frazier Rogers Hall

Teaching Assistants:

TBD

Office Hours: TBD

Office Location: TBD

Course Description

Studies containment, protection and preservation practices related to transporting and delivery of packages. 3 Credits.

Course Pre-Requisite and Co-Requisites

N/A

Course Objectives

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

- Understand the fundamentals of distribution and transport packaging.
- Understand the characteristics and hazards associated with the distribution environment.
- Understand the basics of packaging dynamics.
- Prepare a protective package using appropriate materials and testing equipment.

The course presents topics related to the technical aspects of a system approach to designing packaging that provides product protection and facilitates safe and cost-effective distribution. Topics include analyses of the distribution environment, transportation types, packaging dynamics and testing procedures. This course will help students develop their ability to: 1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics; 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 a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives; 6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

The course will consist of three (3) lectures per week, quizzes, projects and examinations.

Materials and Supply Fees

N/A

Professional Component (ABET):

This course contributes three (3) credit hours toward meeting the minimum 48 credit hours of Engineering Topics in the basic-level curriculum for the Packaging Engineering concentration in Biological Engineering.

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	Low
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	
3. An ability to communicate effectively with a range of audiences	Low
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	Low
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	High
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	High
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies	

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

Textbook

N/A

Online Course Recording

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Face-to-Face Course Policy in Response to COVID-19

We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms, please use the UF Health screening system and follow the instructions on whether you are able to attend class. Click here for UF Health guidance on what to do if you have been exposed to or are experiencing COVID-19 symptoms.
- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. Find more information in the university attendance policies

Attendance Policy, Class Expectations, and Make-Up Policy

- Attendance (on time) at lectures and laboratory sessions is expected from all students, at all times. A sign-in sheet and Zoom will be used and monitor attendance which accounts for 10% of your final grade. Students will be warned if they are late on several occasions. Following a second warning, late attendances will be counted as missed lectures.
- Specific directives will be provided for each assignment, but, in most cases, homework assignments and project reports must be turned in through Canvas. Assignments and reports will be marked down for a sloppy presentation and, if excessive, they may be returned un-graded. 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. No assignments will be accepted after 4:00 P.M. on the following day.
- For online homework assignment submissions, it is the student's responsibility to ensure that the correct file is uploaded on Canvas. A wrong submission will be penalized. If technical difficulties with Canvas were to occur, students can always email the file to wpelletier@ufl.edu.
- No make-up exams or quizzes will be given except for valid medical reasons or unless prior arrangements have been made.
- Cell phones must be silenced prior to the start of class.
- No food will be permitted.
- Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require appropriate documentation.

Course Schedule (subject to change)

Week 1	11-Jan	15-Jan	M	Introduction	Week 9	8-Mar	12-Mar	M	Damage Boundary Curves
			W	Introduction				W	Cushioning
			F	Environment and Product Type				F	Cushioning
Week 2	18-Jan	22-Jan	M	Martin Luther King Jr. Day	Week 10	15-Mar	19-Mar	M	Performance Testing
			W	Environment and Product Type				W	Industry Standards
			F	Environment and Product Type				F	Industry Standards
Week 3	25-Jan	29-Jan	M	Environment and Product Type	Week 11	22-Mar	26-Mar	M	Industry Standards
			W	Environment and Product Type				W	Pharmaceutical Shippers
			F	Introduction to Packaging Dynamics				F	Pharmaceutical Shippers
Week 4	1-Feb	5-Feb	M	Vibrations - Basic Concepts	Week 12	29-Mar	2-Apr	M	Pharmaceutical Shippers
			W	Vibrations - Spring/Mass Systems				W	Pharmaceutical Shippers
			F	Vibrations - Spring/Mass Systems				F	Pharmaceutical Shippers
Week 5	8-Feb	12-Feb	M	Forced Vibrations	Week 13	5-Apr	9-Apr	M	Review
			W	Forced Vibrations				W	Team Project
			F	Laboratory Demonstration 1				F	Exam 2
Week 6	15-Feb	19-Feb	M	Review	Week 14	12-Apr	16-Apr	M	Team Project
			W	Damped Vibrations				W	Team Project
			F	Exam 1				F	Team Project
Week 7	22-Feb	26-Feb	M	Random Vibrations	Week 15	19-Apr	23-Apr	M	Team Project
			W	Random Vibrations				W	Team Project
			F	Mechanical Shocks				F	-
Week 8	1-Mar	5-Mar	M	Mechanical Shocks					
			W	Damage Boundary Curves					
			F	Laboratory Demonstration 2					

Evaluation of Grades

Assignment	Percentage of Final Grade
Exam 1 (expected date: 02/19 at 9:35 A.M.)	25%
Exam 2 (expected date: 04/09 at 9:35 A.M.)	25%
Homework Assignments & Quizzes	15%
Project & Presentation	25%
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>

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/> . It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/> . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/> . Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/> .

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator
- Robin Bielling, Director of Human Resources, 352-392-0903, rbielling@eng.ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <https://registrar.ufl.edu/ferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is

available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.