

16:731:541 (Fall, 2017) Simulation Modeling and Analysis in Pkg. Eng.
Packaging Engineering Program, School of Engineering
Rutgers University – New Brunswick, New Jersey

Instructor: Euihark Lee
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 Office: CoRE 603 (732-445-3224)
 Course Time: Monday 6:40pm ~ 9:30pm
 Office Hour: Thursday 2:00pm ~ 3:00pm
 Class Location: EN-D110
 Course Website: <http://sakai.rutgers.edu>

Course Descriptions: This course is focused on the 3 dimensional modeling and analysis. The students who take this course will have comprehensive understanding for 3D modeling using Computer Aided Design software. Moreover, the students will understand general concepts of 3D model simulations such as Finite Element Analysis, Statics and Dynamics analysis. Additionally, commercial packaging software will be demonstrated to have better understand the usage of computer software in packaging fields.

Course Schedule:

Week	Description	Assignment
1	Intro Solidworks, 3D sketches	Workshop 1
2	Engineering Drawing	Workshop 2
3	Basic Modeling, References	Workshop 3
4	Advanced Modeling	Qz 01
5	Surface Modeling	Workshop 5
6	Assembly, Animations and Motion Study	Workshop 6
7	Commercial Packaging Software, 3D printing	Midterm
8	Basic FEM concept, Static Analysis	Workshop 7
9	Dynamic Analysis and simulation Buckling, Static Contact Analysis	Workshop 8 Project Proposal
10	Solidwork Plastic	Qz 02
11	Flow Express Analysis	Workshop 9
12	Thermal Analysis	Workshop 10
13	Plate and Shell Analysis	Qz 03
14	Final Project Presentation	Final presentation due

Grading Policy: Homework and Workshops: 30%
 Midterm: 20%
 Quiz: 20%
 Final Project: 30%

*** During the semester, there might be some adjustments of assignments, grades, extra credits, etc. Those will be announced on the course website. The "Reference score" in the above table will be adjusted accordingly. Late submissions will **NOT** be accepted for any assignment, quiz and exam