

Course Syllabus

Course Information

Fall 2016

MECH 3150 Kinematics and Dynamics Laboratory

Room: ML2 1.218

Time: Friday 10:00am-12:45pm (section101)

Wednesday 10:00am-12:45pm (section102)

Instructor Contact Information

Dr. Wooram Park

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Office Hours: 2:30pm-3:55pm Tuesdays or appointment by email

TA

Jianping Lin (Section 101)

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Office Hours: Wednesday, 2:00pm-3:00pm

Gary Chen (Section 102)

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Office Hours: Tuesday 2:30pm-4:30pm

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Prerequisites or co-requisites: MECH 3350

Other Restrictions: Working knowledge of Pro/Engineer or PTC Creo Parametric 2.0

Course Description

Project-based course associated with MECH 3350. Laboratory course focused on students performing a team design project of a complex mechanical system. Complete analysis of the devices will be documented.

Student Learning Objectives/Outcomes

1. Students will be able to perform kinematic and dynamic analyses of mechanisms using computers.
 2. Students will work in teams to design and fabricate a mechanism to meet design specifications.
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Required Textbooks and Materials

No textbook is required. Materials will be handed out throughout the semester.

Creo Parmetric 2.0 is available on campus but a student edition can be downloaded for free if you desire to use this software off-campus. Please check your computer against system requirements.

Academic Calendar

This laboratory will primarily focus on the kinematic analysis of mechanical systems using Pro/Engineer Mechanism software (or PTC Creo Parametric 2.0). The theory related to this laboratory is covered in MECH 3350. The following is tentative schedule of topics that will be covered in this course.

Mechanisms and Kinematic Connectors	4 weeks
Motion Programming	2 weeks
Gears and Cam-Follower Systems	2 weeks
Team Project	7 weeks

Grading Policy

Final grades will be evaluated as follows:

Assignments 40% Team Project 60%

Multiple absences may result in an F grade.

The final grades will be assigned according to the following ranges. This guideline is subject to change at the discretion of the instructor.

A+	$97 \leq P$	C+	$77 \leq P < 80$
A	$93 \leq P < 97$	C	$73 \leq P < 77$
A-	$90 \leq P < 93$	C-	$70 \leq P < 73$
B+	$87 \leq P < 90$	D+	$67 \leq P < 70$
B	$83 \leq P < 87$	D	$63 \leq P < 67$
B-	$80 \leq P < 83$	D-	$60 \leq P < 63$
		F	60 and below

Policies and Procedures for Students

The University of Texas at Dallas provides a number of policies and procedures designed to provide students with a safe and supportive learning environment. Brief summaries of the policies and procedures are provided for you at <http://provost.utdallas.edu/home/index.php/syllabus-policies-and-procedures-text> and include information about technical support, field trip policies, off-campus activities, student conduct and discipline, academic integrity, copyright infringement, email use, withdrawal from class, student grievance procedures, incomplete grades, access to Disability Services, and religious holy days. You may also seek further information at these websites:

- http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm
 - <http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-HOPV.html>
 - <http://www.utsystem.edu/ogc/intellectualproperty/copypol2.htm>
 - <http://www.utdallas.edu/disability/documentation/index.html>
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The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.