

Basic Course Information

Semester:	Spring 2017	Instructor Name:	Jeronimo N Garay
Course Title & #:	Dynamics Engineering 212	Email:	Jeronimo.garay@imperial.edu
CRN #:	21114	Webpage (optional):	
Classroom:	2722	Office #:	2789.1
Class Dates:	February 13 - June 9 2017	Office Hours:	M,W,F 10:30 to 11:30 and T,TH 10:00 to 11:00
Class Days:	T,TH	Office Phone #:	(760) 355-6438
Class Times:	11:20 to 12:45	Emergency Contact:	(760) 353-7749 Home
Units:	3 Units		

Course Description

The study of the course includes: Linear and Curvilinear Motions, Relative Motions, Kinematics and kinetics of particles, Central Force Motion ,Systems of particles, Work and Energy, Impulse and Momentum, Moments and Products of inertia, Euler’s Equations of Motion, Vibrating and Time Response Engineering Applications.

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

- 1. Solve problems involving kinetics of particles (ILO2)*
- 2. Solve problems involving kinematics of rigid bodies (ILO2)*
- 3. Solve problems involving plne motion of rigid bodies (ILO2)*

Course Objectives

Upon satisfactory completion of the course, students will be able to:

- 1. Solve problems involving kinematics of particles.**
- 2. Solve problems involving kinetics of particles with Newton’s second law.**
- 3. Solve problems involving kinetics of particles by energy and momentum methods.**

4. Solve problems involving systems of particles.
5. Solve problems involving the kinematics of rigid bodies.
6. Solve problems involving rigid bodies in plane motion with forces and accelerations.
7. Solve problems involving rigid bodies in plane motion with energy and momentum methods.
8. Solve problems involving mechanical vibrations.

Textbooks & Other Resources or Links

Beer, Johnston, vector mechanics for engineering (11th/e).
 Hibbeler, Russell C. Principles of Dynamics 12th Edition Prentice Hall.
 Bedford, Anthony M. Engineering Mechanics Dynamics 6th Edition. Prentice Hall.

Course Requirements and Instructional Methods

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement. *Out of class assignment includes 60 to 100 exercises per week as homework and reading the book. In class assignments include cooperative learning solving problems in group.*

Course Grading Based on Course Objectives

Grading Policy: The semester grade will be based on an accumulation of points

	Points	Points Acc.	Percent Grade
Tests: Midterm	350	900-1000	90-100 A
Quizzes: 10 points each	100	800-899	80-89 B
(10 quizzes will be given)			
Homework: 20 points each	200	700-799	70-79 C
(10 home-works will be given)			
Final Exam	350	600-699	60-69 D

Total Points	1000	0-599	0-59	F
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Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See [General Catalog](#) for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Online Netiquette

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- **Plagiarism** is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- **Cheating** is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the [General Catalog](#) for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

Additional Student Services

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **Blackboard Support Site.** The Blackboard Support Site provides a variety of support channels available to students 24 hours per day.
- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your [Campus Map](#) for the [Math Lab](#); [Reading, Writing & Language Labs](#); and the [Study Skills Center](#).
- **Library Services.** There is more to our library than just books. You have access to tutors in the [Study Skills Center](#), study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the [Disabled Student Programs and Services](#) (DSP&S) office as soon as possible. The DSP&S

office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.

- **Student Health Center.** A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC [Student Health Center](#) at 760-355-6128 in Room 1536 for more information.
- **Mental Health Counseling Services.** Short-term individual, couples, family, and group therapy are provided to currently enrolled students. Contact the IVC [Mental Health Counseling Services](#) at 760-355-6196 in Room 2109 for more information.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC [General Catalog](#).

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC [Library Department](#) provides numerous [Information Literacy Tutorials](#) to assist students in this endeavor.

Anticipated Class Schedule/Calendar

ENGINEERING 212 OUT-LINE

	DATE	DAY	SECTIONS COVERED
WEEK #1			
	February 13	M	Introduction 11.1
	February 15	W	11.2
WEEK #2			
	February 20	M	Holiday
	February 22	W	11.4, Homework 11.1, 11.2 Due
WEEK #3			
	February 27	M	11.5

	March 1	W	12.1, Homework 11.4 Due
WEEK #4			
	March 6	M	12.2
	March 8	W	12.2, Homework 11.5, 12.1 Due
WEEK #5			
	March 13	M	13.1
	March 15	W	13.1, Homework 12.2 Due
WEEK #6			
	March 20	M	13.2
	March 22	W	13.2, Homework 13.1, Due Due
WEEK #7			
	March 27	M	13.3
	March 29	W	13.4, Homework 13.2 Due
WEEK #8			
	April 3	M	14.1
	April 5	W	Homework 13.3, 13.4 Due, Midterm
WEEK #9			
	April 10	M	14.2
	April 12	W	15.1, Homework 14.1 Due
WEEK #10			
	April 24	M	15.2
	April 26	W	15.3, Homework 14.2, 15.1 Due
WEEK #11			
	May 1	M	15.4
	May 2	W	15.5, Homework 15.2, 15.3 Due
WEEK #12			

	May 8	M	16.1
	May 10	W	16.2, Homework 15.4, 15.5 Due
WEEK #13			
	May 15	M	17.1
	May 17	W	17.2, Homework 16.1, 16.2 Due
WEEK # 14			
	May 22	M	17.3
	May 24	W	19.1, Homework 17.1, 17.2 Due
WEEK #15			
	May 29	M	Holiday
	May 31	W	19.2
WEEK #16			
	June 5	M	Final Exam

*****Tentative, subject to change without prior notice*****