



King Fahd University of Petroleum & Minerals

College of Engineering Sciences Mechanical Engineering Department First Semester 2008/2009 (081)

SYLLABUS FOR THE COURSE ME 201 DYNAMICS

ME Department Mission

The department is committed to providing highest quality education in mechanical engineering, conducting world-class basic and applied research, addressing the evolving needs of industry and society, and supporting the development of more competitive and new industry in the Kingdom of Saudi Arabia.

Course Catalogue Description (3-0-3)

Prerequisite CE 201

Kinematics of rectilinear and curvilinear motion of particles. Dynamics of particles and systems of particles. Kinematics of rotation and plane motion of rigid bodies. Work and energy relations. Impulse and momentum principles. Dynamics of rigid bodies in plane motion.

Textbook

Engineering Mechanics: Dynamics, by R. C. Hibbeler, 10th Edition, Prentice Hall 2004

Instructor	Dr. H. Al-Qahtani	Office 22-243	Tel.: 2846	E-mail: QahtaniH
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Coordinator	Dr. Saif Al-Kaabi	Office 22-243	Tel.: 4496	E-mail: kaabis
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Class Schedule	Sec. 03	Days: SMW	Time: 10:00 → 10:50	Location: 24-149
	Sec. 04	Days: SMW	Time: 11:00 → 11:50	Location: 24-156

Attendance

According to KFUPM rules and regulations, Attendance is **MANDATORY** and will be checked at the beginning of each lecture. The only acceptable excuse for absence is the one authorized by the Deanship of Student Affairs on their prescribed form. For any unexcused absence, 0.5 marks will be deducted from the final grade. More than **8** unexcused absences will be reported to the registrar office and result in a **GRADE of DN** regardless of the student's grade.

Homework (HW)

HW problems are pre assigned as in the course outline Table. All HW problems assigned are due in class on **Mondays** unless stated otherwise by the instructor. Each HW should have the ME Department HW cover page. Late HW will **not** be accepted.

Office Hours (OH)

The course instructor will be available in his office **hours** for the sole purpose of answering students' questions and providing guidance on any issues related to the course. SMW: 12:10-01:00 PM; UT: 03:20-04:10 PM.

Electronic Learning

The course will have a Web Page on the KFUPM Intranet. On **WebCT** page, student finds helpful information including lectures in the form of PowerPoint Presentations, solutions for HW problems and major exams.

Grading System	Weight	Location	Date	Time
HW & Attend.	5 %		For HW Refer to due dates	
Quizzes	10 %		To Be Announced (TBA)	In class
1st Exam	25 %	(TBA)	Sat. Nov. 15/2008	7:00 - 9:00 PM
2nd Exam	25 %	(TBA)	Sat. Jan. 03/2009	7:00 - 9:00 PM
Final Exam	35 %	(TBA)	Wed. Feb. 4 /2009	7:00 PM



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Course Outline		
Week Number	Sections Covered from Textbook	Problems Assigned as Homework
1	12.1, 2, 4, 5 (omit 12.3)	
2	12.6, 7	HW#1 Due 20/10/2008 (12.) 13, 20, 23, 28, 62
3	12.8, 9,10 13.1, 2, 3	HW#2: Due 27/10/2008 (12.) 91, 94, 104, 114, 127
4	13.4, 5, 6 (omit 13.7)	HW#3: Due 3/11/2008 (12.) 139, 143, 173, 193, 203
5	14.1, 2, 3, 4, 5, 6	HW#4: Due 10/11/2008 (13.) 15, 22, 72, 92, 102, 107
Saturday (Week 6), Nov. 15th, 2008 First Major Exam (CH 12 & 13) 7-9 PM @ TBA		
6	15.1, 2, 3	HW#5: Due 17/11/2008 (14.) 10, 31, 51, 61, 71, 92
7	15.4, 5, 6, 7 (omit 15.8, 15.9)	HW#6: Due 24/11/2008 (15.) 7, 17, 27, 37, 51
8	16.1, 2, 3 (omit 16.4)	HW#7: Due 1/12/2008 (15.) 58, 78, 88, 98, 106
Eid Vacation (3 – 13 December)		
9	16.5, 6	HW#8: Due 15/12/2008 (16.) 8, 18, 25, 30
10	16.7, 8	HW#9: Due 22/12/2008 (16.) 58, 77, 88, 94, 99
11	17.1, 2, 3	HW#10: Due 29/12/2008 (16.) 111, 122, 126, 139, 144
Saturday (Week 12), January 3rd, 2009 Second Major Exam (CH 14,15, &16) 7-9 PM @ TBA		
12	17.4, 5	HW#11: Due 5/1/2009 (17.) 16, 26, 32, 44, 49
13	18.1, 2, 3, 4, 5	HW#12: Due 12/1/2009 (17.) 58, 69, 75, 79,99,109
14	19.1, 2	HW#13: Due 19/1/2009 (18.) 4, 22, 27, 29, 42, 46, 53
15	19.3, 4	HW#14: Due 26/1/2009 (19.) 5, 13, 23, 33, 43, 53, 55

Good Luck.