MEMORANDUM

Date: January 4, 2018

To: ME5200 Students and SECS Faculty

From: Kent L. Ko, Associate Professor

Re.: Course Syllabus for ME 5200 (Dynamics), Winter 2018

Office: 420 Engineering Center

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Office Hours: Wednesdays 3:00 PM to 4:00 PM or by appointment

Textbook: Riley, W. F. and L. D. Sturges, *Dynamics*, second edition, Wiley, 1996.

COURSE OBJECTIVES:

The primary objective of this course is to provide the student with the background in Dynamics. The course should also enhance the student's analytical skills.

EXAM DATES:

Test 1 – February 6, 2018, Tuesday, 7:30 P.M.-9:17 P.M.

Test 2 – March 13, 2018, Tuesday, 7:30 P.M.-9:17 P.M.

Final Exam – April 24, 2018, Tuesday, 7:00 P.M. – 10:00 P.M.

Note: The last day of official withdrawal is Wednesday, March 14, 2018.

Both the test and the final exam will be close-book and close-note. A formula sheet will be given to the student during the test and during the final exam. Cheating and plagiarism will be reported to the Academic Conduct Committee for hearing.

Make-up exam **will not be** provided. Requesting waiving an exam or test can only be allowed for emergencies; the instructor should be notified with a telephone communication before the exam. A written proof for the emergency should also be given to the instructor within three days after the exam or test. The instructor will be the only person to judge the merit of the emergency. Vacations, weddings, funerals and in-town job assignments cannot be considered emergencies. Students should notify the instructor of any out-of-town job assignments during the first week of class so the test dates indicated above can be rescheduled to allow every student not to miss any of the two tests. The time and the date for the final exam cannot be changed.

GRADING:

The course grade will be calculated by using the following distribution:

Two Tests60%Final Exam30%Homework10%

If the total score of homework is below 30% of the maximum possible score, the course grade will be given as 0.0 regardless of the grades for others. Students are allowed to discuss homework problems with not more than one partner. In that case, all team members' names should appear on all team members' homework papers and every team member should contribute to the discussions of the problem. Copying a partner's homework paper and/or failing to identify all team members' names on the paper will be considered plagiarism and will be report to Academic Conduct Committee. Grading for homework will be based on neatness, clarity and legibility in addition to correct answers and reasoning.

The student will be expected to attend every class lecture for class discussions. If the student misses the class more than 10 times, his or her course grade will be given as 0.0 regardless of the grade earned. An extra credit of 0.1 for the course grade based on the 4.0 system will be given to students who have perfect attendance.

COURSE OUTLINE:

- 1. Kinematics of Particles
- 2. Kinematics of Rigid Bodies
- 3. Kinetics of Particles
- 4. Kinetics of Rigid Bodies
- 5. Kinetics of Particles: Work and Energy Methods
- 6. Kinetics of Rigid Bodies: Work and Energy Methods
- 7. Impulse and Momentum
- 8. Lagrange Equation