## Georgia Perimeter College
### Common Course Outline

<table>
<thead>
<tr>
<th>Course Abbreviation &amp; Number:</th>
<th>ENGR 2606</th>
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<tbody>
<tr>
<td>Course Title:</td>
<td>Dynamics</td>
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<tr>
<td>Credit Hours:</td>
<td>3</td>
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### Prerequisites:
- ENGR 2605, MATH 2432 each with a C or better

### Co-requisites:
- None

### Course Description:
Topics of study include kinematics and kinetics of rigid bodies in plane motion.

### Expected Educational Results:
As a result of completing this course, the student will be able to do the following:

1. Apply sound analytical techniques and logical procedures in problem solving;
2. Apply the kinematics of a point in rectilinear motion and motion in two or three dimensions using rectangular Cartesian and cylindrical coordinates and tangential and normal components;
3. Apply the concepts of kinetics of particles and mass centers of bodies;
4. Apply the concepts required for understanding the kinematics of a rigid body in plane motion;
5. Apply at an introductory level the concepts and applications of kinetics of a rigid body in plane motion;
6. Apply work-energy and impulse-momentum methods to the plane motion of rigid bodies.

### Course Content:
1. Developing problem-solving skills (20%)
2. Kinematics of particles (15%)
3. Plane kinematics of a rigid body (15%)
4. Kinetics of particles (10%)
5. Plane kinetics of a rigid body (25%)
6. Work-energy and impulse-momentum analysis of a rigid body in plane motion (15%)

### Assessment of Outcome Objectives

**Course Grade:**

The course grade is to be determined by the individual instructor by a variety of evaluation techniques consistent with the overall college policy including class attendance. The procedure should include:

- at least three in-class assessments (tests or quizzes) -30%-40%
- class/homework – 30%-40%
- comprehensive final examination - 20% to 30%.

**Course Assessment:**

Assessment of the expected educational results of this course must be conducted every three years. The assessment instrument will be a set of selected questions that cover majority of the topics in the course content section from the final examination.

**Use of Assessment Findings:**

The Engineering committee will evaluate the findings and determine the level of success in expected educational results and consider recommending to the Discipline Academic Group executive committee, any changes in the curriculum after careful review of curricula of transfer institutions.

**Last Revised:**

January 2012 Edited February 2014
Reviewed April 2015