

CHAPTER OVERVIEW

6: Uniform Circular Motion and Gravitation

This chapter deals with the simplest form of curved motion, **uniform circular motion**, motion in a circular path at constant speed. Studying this topic illustrates most concepts associated with rotational motion and leads to the study of many new topics we group under the name *rotation*. Pure *rotational motion* occurs when points in an object move in circular paths centered on one point. Pure *translational motion* is motion with no rotation. Some motion combines both types, such as a rotating hockey puck moving along ice.

[6.0: Prelude to Uniform Circular Motion and Gravitation](#)

[6.1: Rotation Angle and Angular Velocity](#)

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[6.4: Fictitious Forces and Non-inertial Frames - The Coriolis Force](#)

[6.5: Newton's Universal Law of Gravitation](#)

[6.6: Satellites and Kepler's Laws- An Argument for Simplicity](#)

[6.E: Uniform Circular Motion and Gravitation \(Excercise\)](#)

Thumbnail: Two bodies of different mass orbiting a common barycenter. The relative sizes and type of orbit are similar to the Pluto–Charon system. (public domain; Zhatt).

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