## AL-FARABI KAZAKH NATIONAL UNIVERSITY

Z. B. Rakisheva A. S. Sukhenko

# THEORETICAL MECHANICS

Educational manual

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Educational manual was prepared on the base of a compulsory subject of theoretical mechanics, read by the authors for the students of specialty «Mechanics». It contains a lecture course of five modules, including kinematics, statics, dynamics of the mass point and the mechanical system, rigid body dynamics, analytical mechanics, as well as some of the tasks and exercises on these topics.

It will be of interest for students of specialties «Mathematics», «Mathematical and Computer Modeling» and others, which curriculum includes the study of theoretical mechanics.

#### Publishing in authorial release.

Учебное пособие подготовлено на основе обязательного курса теоретической механики, читаемого авторами для студентов специальности «Механика». Содержит курс лекций из пяти модулей, включающих кинематику, статику, динамику материальной точки и механической системы, динамику твердого тела, аналитическую механику, а также некоторые задачи и упражнения по этим темам.

Представляет интерес для студентов специальностей «Математика», «Математическое и компьютерное моделирование» и других, в учебный план которых входит изучение теоретической механики.

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