

A. *Pendulum* was written by David J. Fischer. It was developed in support of the Integrated First-Year Curriculum in Science, Engineering, and Mathematics at Rose-Hulman Institute of Technology. This curriculum project is supported by the National Science Foundation, the General Electric Foundation, and Lilly Endowment, Inc. If you are interested in this or any other application written for the Rose-Hulman Institute of Technology Integrated First Year Curriculum, please contact us at **ifycsem@nextwork.rose-hulman.edu**. The following people are currently serving as professors for the curriculum and would welcome your comments and questions:

Dr. Claude Anderson, III, Computer Science

Campus Box 98  
ext. 8331

Dr. Jerry Fine, Mechanical Engineering  
Campus Box 140  
ext. 8353

Dr. Jeffrey Froyd, Electrical Engineering  
Campus Box 111  
ext. 8340

Dr. Mike Moloney, Physics  
Campus Box 161  
ext. 8302

Dr. Howard McLean, Chemistry  
Campus Box 70  
ext. 8378

Dr. Edward Mottel, Chemistry  
Campus Box 71  
ext. 8315

Dr. Brian Winkel, Mathematics  
Campus Box 132  
ext. 8412

c/o Rose-Hulman Institute of Technology  
6060 Wabash Avenue  
Terre Haute, Indiana, USA 47803

phone 812-877-1511  
or

812-877- ext.

- B. *Pendulum* best fits in the physics category.
- C. *Pendulum* is designed to simulate pendulum motion. It allows the user to set the parameters of a simple pendulum including a forcing function. It then simulates and displays the motion of the pendulum which can be viewed at any orientation in three dimensions. In addition, this application allows the user to compare simulated data with experimental data.

- D. *Pendulum* is used as part of the Integrated First Year Curriculum in physics classes to demonstrate the principles of potential and kinetic energy, conservation of energy, simple harmonic motion, tension and acceleration. The ability of the application to import experimental data makes it useful as a laboratory tool.
- E. *Pendulum* was developed under NeXTSTEP 2.1.
- F. *Pendulum* requires no special installation.
- G. The Documentation folder included with the application is required for online

documentation built into the application. If it is removed, the application will still function properly, except for Help.