DEPARTMENT OF MECHANICAL ENGINEERING **The Sidney E. Fuchs Seminar Series**

3:30-4:30pm, Friday, February 17, 2012 Frank H. Walk Design Presentation Room



Seven Sinful Problems in Mechanical Engineering

by Glenn Sinclair*

Groves-Hodge Professor of Mechanical Engineering, LSU

Seven simple problems will be discussed in the following areas: two in dynamics, one in heat transfer, one in fluid mechanics, two in solid mechanics, and one in numerical methods. These problems are problematic within themselves. The seminar will end when the students present have resolved all the problems with the problems, or when the speaker decides it is time to go for a beer, whichever comes thirst.

* The Groves-Hodge Professor of Mechanical Engineering, has a B.Sc. in Mathematics and B.E. in Engineering Science from the University of Auckland, New Zealand, and a PhD in Applied Mechanics from the California Institute of Technology (1972). Has invested a major part of his career in the Mechanical Engineering Department at Carnegie Mellon, where he also served as ME Department Head for six years. Joined the ME Department at LSU in 2001 and served as ME Department Chair for six years. Has made significant research contributions in the areas of fracture mechanics, tribology and numerical methods related to a variety of applications including jet engines, manufacturing processes and biomechanics. His specialty in fracture mechanics is singularity identification and interpretation and improved modeling to remove stress singularities. In numerical methods he is a leading expert in verification techniques and Finite Element Analysis.