



# Healthcare Engineering: Inspiring Engineering Minds to Advance Human Health

featuring

## Ming Chyu, PhD

Founder & Coordinator, Healthcare Engineering Option  
Master of Engineering Program, Whitacre College of Engineering  
Texas Tech University

**Wednesday, March 1**  
**Noon, ACB 110**

This presentation is being co-sponsored by the Division of Integrative Medicine as part of an Integrative Medicine Mini-series.

Engineering has played a crucial role in bringing about revolutionary advances in health care. Contributions have been made from almost all engineering disciplines, including Biomedical, Chemical, Civil, Computer, Electrical, Environmental, Industrial, Mechanical, Software, and Systems Engineering as well as by healthcare professionals who are engaged in supporting, improving, and/or advancing any aspect of health care through engineering approaches. The purpose of this presentation is to explore a rigorous definition of Healthcare Engineering as an academic discipline, an area of research, a field of specialty, and a profession. In addition, Dr. Chyu will provide examples to illustrate engineering's contributions to advancing health care, as well as future prospects of Healthcare Engineering.

Ming Chyu, PhD, is a Professor of Mechanical Engineering at Texas Tech University and an Adjunct Professor of Medicine at Texas Tech University Health Sciences Center. He is a Fellow of American Society of Mechanical Engineers, and he has received multiple awards for research, teaching, and service. He has conducted research funded by numerous entities including National Institutes of Health, National Science Foundation, US Department of Energy, US Department of Agriculture, private foundations, and industry. He has published 180 technical publications in engineering and health care. Dr. Chyu is dedicated to promoting collaborations between engineering and health care, and he has led 40 co-authors worldwide to define Healthcare Engineering. He is the founder of the Healthcare Engineering Option graduate program at TTU, the Founding Editor-in-Chief of Journal of Healthcare Engineering, and the Founding President of the Healthcare Engineering Alliance Society (HEALS).