

Kathleen Sienko, PhD

Timothy R.B. Johnson, MD

**Multidisciplinary Design Minor:
Specialization in Global Health Design**

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4:10-6PM

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Kathleen H. Sienko is an Assistant Professor in the Departments of Mechanical and Biomedical Engineering at the University of Michigan (UM), Ann Arbor, MI. She earned her Ph.D. in 2007 from the Harvard-MIT Division of Health Science and Technology's Medical Engineering Program, and holds an S.M. in Aeronautics & Astronautics from MIT and a B.S. in Materials Engineering from the University of Kentucky. She directs both the Sensory Augmentation and Rehabilitation Laboratory (SARL) and the Laboratory for Innovation in Global Health Technology (LIGHT). Prof. Sienko has led efforts at the University of Michigan to incorporate the constraints of global health technologies within engineering design at the undergraduate and graduate levels. Innovative educational activities including low-cost medical device design and project scoping activities at rural clinics in sub-Saharan Africa, Nicaragua, and China have been implemented in an iterative co-creative design process that occurs in close collaboration with stakeholders from resource-limited settings.



Dr. Timothy R.B. Johnson joined the faculty of the University of Michigan in 1993 as the Bates Professor of the Diseases of Women and Children and Chair of Obstetrics and Gynecology. He is also Arthur F. Thurnau Professor, Professor of Women's Studies, and Research Professor in the Center for Human Growth and Development. His education and training have been at the University of Michigan, University of Virginia and Johns Hopkins. He is Fellow of the American College of Obstetricians and Gynecologists (ACOG) and Fellow of the American Institute of Ultrasound in Medicine. He is active in international teaching and training especially in Ghana, Africa and is an honorary fellow of the West African College of Surgeons, honorary fellow of the Ghana College of Physicians and Surgeons, and Fellow ad eundem of the Royal College of Obstetricians and Gynaecologists (London). He is author of over two hundred fifty articles, chapters and books. He has served on numerous editorial boards, study sections, professional committees, societies and boards and is an elected member of the Institute of Medicine of the National Academy of Science. In 2005, Dr. Johnson was awarded the Distinguished Service Award, the highest honor of ACOG. He is Past President of the Association of Professors of Gynecology and Obstetrics and Editor of the International Journal of Gynecology and Obstetrics.

In this week's seminar, we explore the **Multidisciplinary Design Minor: Specialization in Global Health Design**. Professor Kathleen Sienko and Dr. Timothy Johnson will introduce their work in Ghana to improve maternal health. In addition, a panel of students from the Global Health Design minor will discuss their experiences in Ghana and in China observing healthcare delivery in other nations and proposing engineering-based solutions.

Information on the Multidisciplinary Design Minor and how to apply at this link:

<http://www.engin.umich.edu/minors/multidisciplinarydesign/members/specializations.html>

The seminar series "Providing Better Healthcare through Systems Engineering" is presented by the U-M Center for Healthcare Engineering and Patient Safety: Our mission is to improve the safety and quality of healthcare delivery through a multi-disciplinary, systems-engineering approach.

Associated papers related to our speakers' presentations can be accessed at: <http://sitemaker.umich.edu/safety/home>. For additional information and to be added to the weekly e-mail for the series, please contact genekim@umich.edu.