

# MSU CENTER FOR INTERDISCIPLINARITY

Michigan State University's College of Arts & Letters (CAL) is in the process of establishing the **MSU Center for Interdisciplinarity** (MSUCI), a unit that will advance interdisciplinary research and pedagogy at the University while preparing the next generation of citizen leaders to address the most challenging questions of our time.

## ABOUT THIS CENTER

Interdisciplinarity is the theory and practice of combining two or more academic disciplines to address complex questions in a broader and more nuanced way than is possible from a single disciplinary perspective. In recent decades, it has become a bigger part of the research and teaching missions of post-secondary institutions, and is also itself becoming the focus of inquiry and criticism. In particular, important philosophical perspectives on interdisciplinary practice have emerged, and the philosophy of interdisciplinarity is a growing subfield of philosophy that offers new insights for interdisciplinary practitioners and a compelling approach to the role of philosophy in society as a whole.

The MSUCI will position Michigan State University to become an international leader in efforts to understand and address the most intractable questions of our time collaboratively across the boundaries of traditional academic disciplines. Complex problems such as food security and environmental justice have important conceptual and empirical dimensions that require input from a wide range of other disciplines. At the same time, they are problems for people outside the academy, and any adequate response will require input from non-academic stakeholders. This unit will draw on the international strengths of Michigan State University in the sciences, social sciences, business, agriculture, arts, and humanities to develop conscientious and transformative responses to the most challenging questions we face.



The Center for Interdisciplinarity will **focus on three areas** of impact:

- leading-edge research in the field of interdisciplinarity,
- the facilitation of innovative broader impact statements for major external grant proposals to the National Science Foundation, National Institutes of Health, and other federally funded grants,
- the development and delivery of graduate education in interdisciplinarity that will train the next generation of citizen scholars across multiple fields of study with the skills required to address society's most complex problems.



The Center for Interdisciplinarity will provide the support, infrastructure, and community to enable faculty and students to expand their work on ethical and theoretical issues related to important topics such as healthcare, food safety, climate change, and sustainability. MSU's Department of Philosophy already is leading the way in the philosophy of interdisciplinarity, having established leadership on topics such as food and agriculture, environmental justice, and the facilitation of interdisciplinary communication. For example:

- **Professor Paul B. Thompson** has produced seminal work on animal welfare, sustainability, and food ethics.
- **Associate Professor Kyle Whyte** works on environmental justice, especially the effects of climate change on indigenous communities, which has had an influence on policy at the state and federal levels.
- **Professor Michael O'Rourke** leads a research group that designs and delivers philosophy-based workshops to businesses and community organizations to allow for improved communication in negotiations. Simultaneously this enhances the ability of researchers to study how people communicate with one another in team-based projects.

## CURRENT INVESTITURES

We are currently in the process of engaging key individuals who can help shape and advance this transformative initiative. The idea of the Center already has gained significant traction with our friends and alumni. Dr. Thomas P. Yunck, Founder and CTO of GeoOptics, has committed an estate gift for an endowed chair position. Dr. Yunck's bio is below:

### **Dr. Thomas P. Yunck**

A long-time NASA technical manager and researcher, Dr. Yunck pioneered the use of GPS for civil and scientific applications. He is the past chairman of the Foundation for Earth Science and is an inductee into the Space Foundation's Space Technology Hall of Fame. In 1988, he wrote the first proposal for exploiting GPS signals to sound the Earth's atmosphere for weather and climate

applications. Since then, he has been involved in every aspect of its development and validation. Dr. Yunck holds the basic patent on the "state space" approach to Wide Area Differential GPS positioning, which has grown into a \$100M/year industry. He holds a BSEE from Princeton University and a Ph.D. from Yale University.

Another alumnus also is currently considering funding a graduate student position in the Center. Additionally, we are in the early phases of conducting an international search for a director position for the Center and are in the process of securing space in close proximity to the Department of Philosophy where a majority of this collaborative interdisciplinary work will be facilitated. Additional funding for the director position, additional faculty, project and research support, graduate students, and post-doctoral fellows will be critical to helping the Center grow strategically so it can make an immediate impact.

## MSU PHILOSOPHY BECOMES AN INTERNATIONAL LEADER

The MSU Center for Interdisciplinarity will have a transformative positive impact at MSU and around the world. This will provide support for graduate positions, post-doctoral students, and faculty to pursue collaborative, interdisciplinary approaches to research.

The leaders of the future must be able to weave humanities values into scientific endeavors in ways that lead boldly toward new discoveries and enable us to effectively respond to our most difficult global challenges. The Center for Interdisciplinarity will enable Michigan State University to educate the citizen leaders of tomorrow.

## HOW YOU CAN HELP

As we move into the beginning phases of the Center, we seek your advice, input, and feedback. Your experience with multiple start-ups and with a strong philosophy background would provide us with a critical perspective.