UP466 Spring
Energy, Planning and the Built Environment

CRN 57222
Department of Urban and Regional Planning
Tuesday, 5:00 pm–7:50 pm
Temple Buell Hall, Room 223
Credit Hours: 4
Brian Deal, Professor
Andy Robinson, Associate Professor
Haozhi Pan, Graduate Assistant

About the Course
The main objective of the course is to teach students about how to think about buildings and communities of buildings from a different - energy and sustainability centric, perspective. Our building stock in the state of Illinois represents approximately 40% of our total GHG emissions while demanding about 75% of our electrical production. We intend to use campus buildings as a learning laboratory, where students can truly engage with the material they learn on the ways we use our buildings and the ways we can improve upon them, and discuss in terms of the climate action planning.

Who should take it?
This class been developed for a wide range of students with an interest in making communities more sustainable and learning specific strategies for mitigating greenhouse gas emissions from the built environment by looking carefully at our current building stock. It is directed at senior/graduate level students. It will involve research, understanding energy systems, building energy modeling, and application toward developing climate mitigation plans with two group projects. There are no prerequisites, and no math/engineering background assumed. Planners, Architects, Engineers, Other students interested in the environment – All Welcome!

Course Themes

What You Will Learn
- Understand the big picture behind climate planning, energy systems, and use in the U.S.
- Discuss and debate the future of building design for sustainability
- Learn about energy use in buildings and energy audits
- Use eQuest energy modeling software to model campus building energy use
- Develop a community climate action plan

The Instructors
Dr. Brian Deal is an Associate Professor of Urban and Regional Planning. He is actively engaged in all things sustainable. His research interests include the study of planning for energy, urban land use transformation, and climate change. He is the Co-Director of the Smart Energy Design Assistance Center, and the Director of the Land use Evolution and impact Assessment Modeling (LEAM) Laboratory.

Andy Robinson is the Director of Education and Training at the Smart Energy Design Assistance Center (SEDAC) at the U of I. He specializes in the areas of energy engineering and understanding building energy use, and is a LEED Accredited Professional and Certified Energy Manager.