PROFESSIONAL STUDIES URBAN SUSTAINABILITY (PSUS)

Explanation of Course Numbers

- Courses in the 1000s are primarily introductory undergraduate courses
- Those in the 2000s to 4000s are upper-level undergraduate courses that can also be taken for graduate credit with permission and additional work assigned
- Those in the 6000s and 8000s are for master's, doctoral, and professional-level students
- The 6000s are open to advanced undergraduate students with approval of the instructor and the dean or advising office

PSUS 6201. Principles of Sustainable Urban and Regional Planning. 3 Credits.
The environmental, social, and economic elements of sustainability. Present and future challenges, including environmental management, energy policy, financial crises, global warming, inequality, public education, third and first world slums, the success and failure of nations, urban agriculture, urban economics, and more. The implications of sustainable development and conducting research based on evidenced-based policy. Students focus on the work of researchers outside of the planning field as they write a series of research essays containing reviews of relevant scientific literature.

PSUS 6202. Urban and Environmental Economics. 3 Credits.
The application of neoclassical economics to problems faced by practitioners of the field of sustainable urban and regional planning. Key economic concepts including supply and demand, consumption and production, markets and market failure, and measurement of environmental and other non-market commodities. An economist's perspective on the principals and methods for understanding urban and environmental challenges and solutions, urban growth, environmental quality, public policy, and other issues fundamental to contemporary development.

PSUS 6203. Quantitative Research Methods in Urban Planning. 3 Credits.
Introduction to quantitative research methods with a focus on urban planning applications, including geographic information systems (GIS) and econometric analysis and building and analyzing spatial datasets using statistical software.

PSUS 6204. Land Use Law. 3 Credits.
Understanding the legal context of land use planning as it applies to contemporary issues. The role of land use law in shaping the urban context and its implications for policy and practice.

PSUS 6205. Justice, Equity, Diversity, and Inclusion. 3 Credits.
Current patterns of urban development, including segregation, concentrated poverty, suburban sprawl, and gentrification. Restricted to students in the sustainable urban planning program.

PSUS 6210. Transportation Planning in City Systems. 3 Credits.
Transportation planning with long-run goals in mind, including reducing greenhouse gas emissions. The role of planning at local and regional scales within the broader framework of transportation engineering.

PSUS 6211. Regional Development. 3 Credits.
The economics of land use patterns and development processes in the United States and elsewhere in the world. Introduces the field of agricultural economics and examines food deserts and other food-related problems relevant to the field.

PSUS 6212. Sustainable Communities. 3 Credits.
Community development with a focus on policy and the various sectors of interest that affect contemporary urbanization. How policies, planning techniques, and implementation strategies form the core work of planning practitioners.

PSUS 6213. Advanced Research Methods Individual Mentoring. 3 Credits.
Builds on research skills learned in PSUS 6203. Students in the sustainable urban planning program work one-on-one with a faculty member of their choice on a project of joint design. Prerequisite: PSUS 6203.

PSUS 6214. Food and Cities. 3 Credits.
Examines agricultural systems, food production, consumption, and trade, and their links to urbanization, city growth, and public health, through lenses of history, technology, economic theory, geography, and public policy. The course explores the roles that food plays in the lives of urban inhabitants, and in shaping the urban landscape, and the role of cities in determining the geography, sustainability, and business of agriculture.

PSUS 6215. Urban Health Impact Assessment. 3 Credits.
Examines the relationship between the allied fields of urban planning and public health. Addresses the link between the built environment and various health outcomes and the value added incorporating health concerns into the planning and design processes.

PSUS 6216. Megacities in a Globalized World. 3 Credits.
Research-oriented course in which students identify, analyze, and recommend ways of addressing land use change and economic development within one of the world's megacities.

PSUS 6218. Urban Growth and Affordability. 3 Credits.
Real estate economics with an emphasis on land markets and affordable housing. Focus on the spatial outcome of economic development and the relationship between growth and sustainable urban planning.

PSUS 6220. Planning Resilient and Low-Carbon Cities. 3 Credits.
International perspectives on urban planning, taking into consideration increased global temperatures resulting from greenhouse gas emissions-induced climate change. The course is taught with reference to the findings of the Intergovernmental Panel on Climate Change (IPCC) and considers how urbanization around the world must adapt to the reality of global warming and its consequences.

PSUS 6221. Climate Change Science in Urban Planning. 3 Credits.
The science underlying climate change policy and decision making. Earth systems, climate change projections, the need for mitigation, and impact assessment. Designed for non-scientists.

PSUS 6222. Climate Change Economics. 3 Credits.
Energy use in built environments with an emphasis on fundamental drivers of energy demand, strategies to promote energy efficiency, and essential features of energy supply; the relationship between energy demand and supply in development.; how advances in construction technology can help counter greenhouse gas emissions.

PSUS 6223. Reading Cities and Towns. 3 Credits.
Builds on PSUS 6212, using theory and tools relevant to the assessment/transformation of neighborhoods and communities. Focus on understanding the context of planning, including the fundamental drivers of urban/regional form and placed-based policy. Prerequisites: PSUS 6212.

PSUS 6224. Sustainable Energy for Cities and the Environment. 3 Credits.
Resource management and renewable energy technologies. Vulnerabilities of existing urban structures, particularly the energy grid. Implications of and solutions to energy-related problems likely to arise in present and future cities.

PSUS 6227. Critical Infrastructure for Cities and Regions. 3 Credits.
The existing risk profile of energy, water, telecom/internet, and other critical infrastructure and the strengths, weaknesses, opportunities, and threats these systems pose for urbanization in the United States and worldwide.

PSUS 6228. Open Space and Public Facilities Planning. 3 Credits.
Relevant skills applicable to urban park planning. Students learn site assessment and analysis tools and produce a professional quality project.

PSUS 6230. Sustainable Community Design Studio. 3 Credits.
Students gain practical experience by applying research skills and creativity to analyze and resolve a real-world urban issue. Prerequisites: PSUS 6201, PSUS 6202, PSUS 6203, PSUS 6204, PSUS 6210, PSUS 6211, PSUS 6212, PSUS 6220, and PSUS 6221.

PSUS 6231. Practicum:ClimateChangeMgt&Pol. 3 Credits.

PSUS 6233. Capstone in Sustainable Urban Planning. 3 Credits.
Students create a capstone project with the guidance of their mentor. The capstone is a professional written document or other product that presents the results of the student's individual project. Prerequisites: PSUS 6201, PSUS 6202, PSUS 6203, PSUS 6204, PSUS 6210, PSUS 6211, PSUS 6212, PSUS 6220, PSUS 6221.

PSUS 6235. Advanced Topics in Urban Sustainability. 3 Credits.

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