Senate Bill 1112-10

UNIVERSITY SENATE

UNVERSITY AT ALBANY STATE UNIVERSITY OF NEW YORK

Introduced by: UAC

Date: May 14, 2012

CREATION OF URBAN STUDIES AND PLANNING MAJOR

IT IS HEREBY PROPOSED THAT THE FOLLOWING BE ADOPTED:

- 1. That this takes effect for the Fall 2012 semester.
- 2. That this proposal be forwarded to President George M. Philip for approval.

August 30, 2011

Dean Elga Wulfert College of Arts and Sciences University at Albany 1400 Washington Ave Albany, New York 12222

Dear Dean Wulfert,

The Department of Geography and Planning is pleased to submit this proposal to formalize the Urban Studies and Planning, faculty initiated interdisciplinary Bachelors of Arts degree. At the April 27, 2011 Faculty Meeting, the department faculty unanimously agreed to submit this plan for review and approval by Faculty Senate, Dean of Arts and Sciences, Provost and President of the University at Albany.

As you may recall, the Geography and Planning faculty approved the proposal, our Interim Chair, Dr. Catherine Lawson, requested input from the Department Chairs of CAS at the April 13, 2011 Council of Chairs meeting. The discussion was positive, though limited. In addition, there has been no negative feedback from any affected units

If you have any questions or need additional information regarding our proposal, please do not hesitate to contact David Lewis, Director of the Urban Studies and Planning program. Thank you for time and effort in this matter.

Sincerely,

David A. Lewis Associate Professor Director, Urban Studies and Planning

| College of Arts and Sciences Course and Program Action Proposal No. 11-1070 | | | | | | | |
|--|---|--|--|--|--|--|--|
| College of Arts and Sciences Course and Program Action Proposal No. 11-1070 Please check one: Course Proposal X Program Proposal | | | | | | | |
| Please check one: Course Proposal X Program Proposal Please mark all that apply: New Course Revision of: Number Description Cross-Listing Title Prerequisites Shared-Resources Course Deactivate/Activate Course (boldface & underline as X Other (specify): Program of study Department: Geography & Planning Effective Semester, Year: Fall 2012 Course Number Current: New: Credits: Course Title: Course Description to appear in Bulletin: | | | | | | | |
| Prerequisites statement to be appended to description in Bulletin: If S/U is to be designated as the only grading system in the course, check | _ | | | | | | |
| This course is (will be) cross listed with (i.e., CAS ###): | | | | | | | |
| This course is (will be) a shared-resources course with (i.e., CAS ###): | | | | | | | |
| Explanation of proposal: Change from Faculty-Initiated Interdisciplinary Major with a Concentration in Urban Studies and Planning to Full Departmental Major in Urban Studies and Planning. | | | | | | | |
| Other departments or schools which offer similar or related courses and which have certified that this proposal does not overlap their offering: | | | | | | | |
| Chair of Proposing Department Date | | | | | | | |
| Christopher J. Smith 9/14/11 | L | | | | | | |
| Approved by Chair(s) of Departments having cross-listed course(s) [Copy of e-mail approval on following page.] Christopher J. Smith 9/9/11 Date Dean of College Gregory Stevens/Edelgard Wulfert 11/22/1 | | | | | | | |
| Chair of Academic Programs Committee Date Dean of Undergraduate or Graduate Studies Date | _ | | | | | | |
| Pinka Chatterji 11/10/11 | | | | | | | |

Undergraduate Major Proposal:

BA in Urban Studies & Planning

submitted to

Dr. Elga Wulfert

Acting Dean of the College of Arts and Sciences

by the faculty of the

Department of Geography and Planning

Date

August 23, 2011

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Introduction

The Department of Geography and Planning has administered a successful, faculty-initiated major in Urban Studies and Planning since 1995. We propose here to change the program to a full departmental major.

The University at Albany is strongly engaged in research and education in a host of areas germane to urbanism including public policy, urban and regional planning, regionalism and economic development, environmentalism and globalization. A full disciplinary major in Urban Studies provides undergraduates with a natural entrée into this wealth of intellectual opportunity at many of our institutional peers. Both urban studies (in the liberal arts) and the professional disciplines of urban and regional planning have emerged as popular and substantial academic disciplines in American universities, with recognized professional associations, congresses, journals, book series, and educational and research practices. The Department of Geography and Planning has had a Masters Program in Urban & Regional Planning since 1982 (it was fully accredited by the Planning Accreditation Board in 1999). The department has been the administrative home of a successful faculty-initiated major in Urban Studies and Planning (USP) since 1995.

The USP program has proved very popular and has grown steadily. It has contributed significantly to the overall mission of the Department of Geography and Planning, to General Education, and to interdisciplinary initiatives within the University, including Environmental Sciences, Information Science, East Asian Studies, and other fields, through joint appointments, cross-disciplinary research and teaching, and other linkages. Particularly important is the range of opportunities the USP major provides for students to engage in research related to urbanization and urban planning, and in internships, studios, and other "hands-on" engagements with the local community.

Although both the existing and the proposed USP programs are liberal arts majors, our students have greatly benefited from the fact that the department also houses a fully accredited, professional, graduate planning program. This fact, which differentiates the program in the region and is reflected in its name, has proved particularly attractive to students over the past decade. In 2009 the number of full and part-time declared majors was 60). Over the past five academic years, the program has averaged 17 graduates per year.

During the same time (1997-2010) the department's faculty has grown from 10 to 13 with a commensurate increase in the range and depth of our collective expertise in urban studies. However, the recent budget climate has resulted in the loss of one senior faculty to retirement and a junior faculty to relocation. Still, now is the appropriate time to move the major forward to departmental status to ensure its long term survival, strengthen the University's mission to be an engaged university, to expand the potential of the program and to improve the student learning experience through restructuring the curriculum as well as expanded advisement. Furthermore, recent occupation trends indicate that the field of Urban and Regional Planning is expanding and considered among the best current and future careers.¹ The increasing visibility of the discipline should result in

¹ U.S. News and World Report (2009 and 2010)

increased demand. Formalizing the major will enable the Department and University to meet this demand and contribute to the goal set forth in the University's mission statement.

We have been strongly encouraged in developing this proposal in discussions with the College of Arts and Sciences since the time of the University's Compact Planning process. The idea was also strongly supported in the external Program Review of the Geography and Planning completed in May 2006.

In developing the proposed revisions to the program we have been particularly careful to preserve and enhance four strengths of the existing faculty-initiated major that were underlined in our recent external review.

- General Education Along with other Geography and Planning courses, departmental USP courses make an extraordinary contribution to multiple categories of the University's General Education program. The restructured USP program will do the same.
- Cognate Coursework The University at Albany offers a wealth of urban-related courses across several departments and schools. The cognate portion of the existing USP program encourages students to explore these opportunities. The revised program requires the same number of cognate credits, but does so in a more flexible way, allowing students to tap into rapidly changing course content in cognate disciplines.
- Community Engagement All programs in the Geography and Planning
 Department have been very successful in encouraging students to work on
 internship, studio, and field projects in local communities. The revised USP
 program formalizes this Community Engagement requirement in a way its
 predecessor did not.
- International Focus Department faculty possess exceptionally wide international
 experience in East Asia (particularly China), Latin America, Europe, and Canada.
 These strengths are reflected in their research accomplishments, in crossdepartmental affiliations (for example with EAS and LACUS, in the Urban
 Studies and Planning curriculum (e.g. GOG 225, PLN 320), and by participation
 in interdisciplinary endeavors such as the Globalization Studies Major.

Because the existing USP program has matured and succeeded for over a decade as a faculty-initiated major, we are requesting expedited review as specified in the SUNY *Handbook for the Submission of Undergraduate Academic Program Proposals*.

Program Proposal

The proposed Urban Studies and Planning Major is designed for students interested in a liberal arts education focusing on urban and suburban environments, and on urban, community and neighborhood development, with both a local and a global focus. The

program of study mixes conventional classes with fieldwork, computer-based learning, and internships, and it requires considerable awareness of international, multicultural and policy issues. Students with training in Urban Studies and Planning are prepared to enter careers in housing and community development, real estate, local and state government, local economic development, or local planning. They can pursue further study in graduate or professional schools to specialize in city and regional planning, urban geography, public policy, real estate, architecture, or landscape architecture

The Mission of the Program

The learning objectives the proposed departmental USP major are as follows:

To develop in students:

- A knowledge of urbanism and urbanization as historic, geographic, social, and cultural processes.
- An understanding of the historical development and contemporary condition of US cities and metropolitan areas.
- A comparative understanding of global patterns of urbanism and urbanization, stimulating global awareness and knowledge of the role of urbanization in global change.
- An introduction to the principles and practices of urban planning, in the United States and other parts of the world.
- A multidisciplinary understanding of urban related issues growing from exposure to the disciplines of Geography, Planning, and at least one cognate field.

To provide for students:

- A multi-dimensional participatory learning experience, combining conventional classes, fieldwork, and independent study.
- A strong exposure to analytical methods, including statistics, GIS, and remote sensing.
- Access to career training, networking with area planning professional, and other resume-enhancing opportunities.

Students in the program will benefit from our bidisciplinary department in many ways. Through our graduate planning program advanced majors have direct access to some first-year graduate planning offerings in shared-resources courses (400-500 level). They also benefit from a departmental culture including many full-time graduate students in planning engaged in a variety of highly visible projects including studios. Similarly, they benefit from the presence of undergraduate and graduate students in the various fields of Geography and Geographic Information Systems, and from faculty deeply engaged in many varieties of urban, regional, international, and environmental research.

Distinctive assets of the Department of Geography and Planning in accomplishing program goals include the following:

• Strong engagement of full-time senior faculty in all levels of undergraduate education, both for our majors and for General Education constituencies.

- The incorporation of expert local practitioners as adjunct faculty and instructors in areas such as transportation, planning law, environmental planning and analysis, and a variety of GIS (Geographic Information Science) applications;
- Aggressive development of opportunities for students to gain direct experience in research and professional practice, through the major's internship program.
- Emphasis on the use of innovative technology, provided in large part by the department's experts in the fields of GIS, GPS (Global Positioning Systems), remote sensing, and statistical methods.
- Introducing students to the unique resources and opportunities the Capital Region provides to gain practical and professional experience though internship, studio, and similar programs.
- Recognition that, although Geography and Planning is (and has been for many years) the natural departmental home for USP, a variety of urban-oriented coursework is available in other departments and schools at the University. Within the constraints set by colleagues in these programs, we strongly encourage USP students to explore these courses through our cognate requirement.

The USP Program and the University's Strategic Goals

The USP major lies at the heart of the Department of Geography and Planning's efforts to serve the larger undergraduate community of the University at Albany. This service is multi-dimensional, occurring through the courses offered, the joint appointments of the faculty in other departments on campus, the cross-listed courses, the contributions to the General Education Program, and various other disciplinary and interdisciplinary endeavors. In addition, the community based research agenda, internships, coupled with the department's collaboration with local professionals, all levels of government, and community partners create a unique learning environment and forwards the University's vision to:

"put knowledge and talent to work through diverse collaborations to benefit the people and communities of the region, state, nation and world."

Through the USP program, the faculty in the Department of Geography and Planning work to promote:

- Enhanced understanding of places, cities, regions, environments, and the processes of globalization, migration, and social and cultural change in geographic context.
- Access for qualified students to instruction in widely applicable analytic tools such as GIS, global positioning systems, remote sensing, image analysis and cartography.
- Improved skills in oral discourse, writing, statistical analysis, and information literacy.
- Better understanding of how the methods and approaches of the natural and social sciences are brought to bear on urban, environmental, and regional issues.

 Appreciation of the distinctive contributions of geography, urban studies, and planning, and an understanding of their place in the academic and professional division of labor.

The USP major addresses directly the problems of metropolitan areas, especially the Capital Region and the New York Metropolitan Region, which is an important component of the University at Albany's long term mission. The major has been successful in providing outreach opportunities and for the most part it has attracted socially and politically-conscious students who want to change the nature of the environment they live in.

Another important goal of the University at Albany involves reaching-out to minority populations in the Capital Region and other metropolitan regions in New York State. There is a high concentration of minority populations in the large metropolitan regions of the state, especially inner-city areas, and Albany's USP major creates important new opportunities in that regard. Two of the most significant of these are: the USP major provides an attractive option for minority students and has been relatively successful in recruiting students, many of them from the state's urban centers, into the program. In addition, many of the courses within the USP major allow students the opportunity to learn about and discuss a variety of issues related to ethnic diversity, both in the local and the global context. In a broader sense, the USP major is one of the few programs at this University that truly allows and requires students to "think globally" while acting "locally" and it strongly supports the University's effort to become engaged with the community.

Proposed Degree Requirements for the Major in Urban Studies and Planning [Proposed Bulletin Copy]

More than 80% of the American population lives in metropolitan areas. The Urban Studies and Planning Major is designed for students seeking a deeper understanding of these metropolitan communities: cities, suburbs, and the urban way of life with all their problems and opportunities in the 21st Century. The program of study mixes conventional classes with fieldwork and computer-based learning, and it requires considerable awareness of international, multicultural and policy issues. Core and cognate courses open up many perspectives on cities for students within the liberal arts, but the program also provides students with a strong introduction to urban and regional planning. Graduates are well equipped to pursue graduate work in urban affairs and several liberal arts disciplines, or to enter professional degree programs in city and regional planning, public policy, real estate, architecture, or landscape architecture; or directly to pursue careers in housing and community development, historic preservation, local and state government, regional economic development, and environmental planning.

General Program B.A.: A minimum of 36 credits including (see table 1):

Five core courses (15 Credits) as follows: USP 101 (=GOG 125), USP 203 (=GOG 225, GLO225), USP 201 (=PLN 220), USP 202 (=GOG 220); plus one methods course chosen from the following list, or as advised: USP 385, GOG 390, GOG 414, GOG 479, USP 456 (= GOG 496), USP 324 (=GOG 324), USP 452, GOG 480, GOG 484, GOG 485, GOG 498.

12 credits of elective courses chosen from the following: USP 266 (=GOG 266 = GLO 266), USP 315, USP 321 (=GOG 321), USP 320, USP 330, USP 328 (=GOG 328 =WSS 328), USP 425, USP 426, USP 430, USP 436, USP 443, USP 449, USP 451, USP 452, USP 460, USP 475, USP 480 (=GOG 480), USP 485, USP 497

3 Credits of community engagement work chosen from the following: USP 437, USP 474, USP 476, USP 490, USP 497.

6 credits of cognate coursework: as advised, chosen from upper-division urbanrelated coursework in departments outside G&P including but not limited to: Anthropology, Economics, Education, History, Political Science, Public Administration and Policy, Sociology, Latin American and Caribbean Studies, Women's Studies, Environmental Science, and selected courses in the Humanities (including English and Art).

Continuity of Courses and General Education Offerings

All the courses listed in the requirements above are extant, and no changes in their General Education designations are envisioned. (Curriculum development plans for the new major are discussed below).

Approval of the major will involve a new undergraduate course prefix, USP. It will replace the PLN prefix on all undergraduate courses. This change is reflected in the courses listed above. Thus USP 201 will replace PLN 220. With this one exception, the numerical portion of current PLN courses will be the same in their new USP versions (see table 1).

The prefix PLN will be retained for graduate-level planning courses. Thus a shared resource course such as Urban Design (currently PLN 475/575) will now appear as USP 475/PLN 575.

At present three courses with GOG prefixes are required in the USP major. USP versions of these courses will be offered, while retaining the GOG prefix as a cross-list, thus: USP 101 = GOG 125, USP 203 = GOG 225, USP 201 = PLN 220, USP 202 = GOG 220. Where appropriate GOG cross lists will also be retained in elective courses. (e.g. USP 480 = GOG 480).

Advisement and Mentoring

The proposed USP major will be unrestricted, and students will be recruited to it in the usual fashion, through outreach and publicity in ASC/US, in our own lower division courses, and through appropriate efforts at "feeder" schools to attract transfer students directly into the major. At present the Department of Geography and Planning uses a "centralized" model of advisement: the program directors of each undergraduate program advise most or all declared majors in that program unless they choose to be advised by another faculty member with whom they happen to have worked closely. These advisors perform all the traditional functions of advisement: general mentoring, orientation to the major, substantive and procedural advisement in the major, supervision

of many internships and orientation to the career world. Our student opinion survey suggests it would be better to disperse advisement more widely among faculty, at least to the extent of encouraging students to seek counsel and perhaps formal advisement from faculty for whom they feel a particular personal or intellectual affinity. Currently, only the USP Program Director provides advisement. As part of the formalization, a minimum of two Department of Geography and Planning faculty will be responsible for advising the USP majors and minors.

We should note that the proposed USP program addresses one concern that students and faculty expressed in our recent *Self-Study*. Because of the relatively rigid structure of the cognate requirement in the existing program, and because the department has no control over the frequency and timing of course offerings in other departments, an unnecessarily large amount of advisement time has been spent helping students fulfill the requirement, or helping them find intellectually acceptable alternatives. The more flexible structure of cognate courses in the proposed major will help mitigate this problem.

The advisors for the existing USP program have played a significant role in encouraging the students in the major to consider taking specific courses that can provide them with "transferable skills" that will be useful to them in their future careers. The most important of these over the years have been courses that provide quantitative skills, including statistics, computing, GIS, GPS, and remote sensing, all of which are useful as on-the-job skills and attractive to potential employers. Other courses that have proved to be useful to USP majors have been internships with a variety of private and public agencies, both locally and in the region. Students typically explore all available opportunities themselves, often using information or contacts provided by the advisor or other faculty. Then the advisor usually steps in to oversee the process: discussing what will be done with the supervisor and generally making sure that the student will be doing valuable work during the Internship. At the end of the semester the supervisor and the advisor would normally have another conversation to discuss how well the student had performed his/her duties, including a consultation about the final grade for the course (most internships are S/U graded).

Department Faculty Engagement

The department of Geography and Planning is a bidisciplinary department in which all thirteen faculty are involved in both graduate and undergraduate teaching. Some faculty teach primarily in the graduate Planning program and some primarily in Geography. But Planning faculty also teach undergraduate USP courses, several people who primarily work on the Geography side are urbanists, a reasonable number of courses are crosslisted (GOG=PLN), and in addition some GOG and PLN courses are accepted as "cognates" in the "other" discipline. Moreover, faculty engagement with one or other departmental program has historically changed over their careers. For these reasons, we make no effort to associate a specific subset of our faculty with the new USP program. The following is a list of all our faculty indicating their areas of research and teaching interest, and which USP, cross-listed, or cognate courses they teach.

Full Time Faculty Engagement with the Major

II. Full-time Faculty with Primary Appointment in Geography and Planning, by Appointment Date, Rank, and Tenure Status

Professor

Ray Bromley, appt. 1985, AICP, PhD Cambridge University, Professor: Metropolitan and Regional Development Strategies, Community Development and Neighborhood Change, Micro-Enterprise Promotion, Planning History, Latin American Cities.

<u>John S. Pipkin</u>, appt. 1974, PhD Northwestern University, Distinguished Service Professor: Quantitative Methods, Urban Design, American Landscape History, Symbolism, and Ideology, Built Environment, Urban Geography.

<u>Christopher J. Smith</u>, appt. 1980, PhD University of Michigan, Professor and Undergraduate Urban Studies and Planning Program Director: Urban Social Geography, East Asian and especially Chinese Cities.

Roger W. Stump, appt., 1982, PhD University of Kansas, Professor: Cultural Geography, Geography of Religion, Quantitative Methods, North America.

Associate Professor (with tenure)

<u>Gene Bunnell</u>, appt. 2004, AICP, PhD London School of Economics and Political Science, Associate Professor: Land Use Planning and Growth Management; Planning Practice; Central City Planning; Infrastructure Finance and Privatization; Case Studies of Planning Effectiveness; Story-telling in Planning. [Case for continuing appointment in process, Spring 2006]

Youqin Huang, appt. 2001, PhD, University of California, Los Angeles, Associate Professor: Population Geography, Economic Geography, Urban Geography, Feminist Perspectives in Geography, Contemporary China, Asian Cities, Transitional Economies.

<u>Andrei Lapenas</u>, appt. 1996, PhD State Hydrological Institute, St. Petersburg, Associate Professor: Climatology, Climate Change, Quaternary Paleogeography, Soils, Russia.

<u>Catherine T. Lawson</u>, appt. 2000 PhD Portland State University, Associate Professor and MRP Program Director: Travel Behavior, Freight, Archived Intelligent Transportation Systems (ITS) Data, Community Development ∓ Housing Issues, Land Use and Transportation Planning, Spatial Analysis/Geographic Information System (GIS) Applications. [Case for promotion and continuing appointment in process, Spring 2006]

David A. Lewis appt. 2003, PhD Rutgers University, Associate Professor: Regional Planning Theories and Techniques; Brownfields Redevelopment; Innovation, Globalization and Economic Restructuring; and Urban and Regional Economic

Development.

<u>James E. Mower</u>, appt. 1987, PhD State University of New York at Buffalo, Associate Professor and MA Program Director: Geographic Information Systems, Automated Cartography, Parallel Processing, Augmented Scenes.

Assistant Professor

<u>Corianne Scally</u>, appt. 2007 Ph.D., Urban Planning & Public Policy, Rutgers University, Assistant Professor: State and local housing policy and programs, Community development, Community-based organizations, Interest group coalitions, Policy innovation & diffusion.

[Case for promotion and continuing appointment will be presented Fall 2011]

Core faculty teach the majority of courses in the major indicating a high level of engagement (see table 2).

III. Biographical Sketches of Faculty

Full-time Faculty (alphabetical order)

Ray Bromley joined the Department in 1985 and was promoted to the rank of Professor in 1987. He holds joint appointments with the Department of Latin American, Caribbean and U.S. Latino Studies, and with the Public Policy Program. He was born and educated in Britain, and has been a naturalized US citizen since 1994. Before moving to Albany he was on the faculty of the University of Wales Swansea for ten years and with a Syracuse University and USAID Technical Assistance Mission in Peru for three years.

Ray's BA, MA and PhD are all in Geography from Cambridge University in England. His doctoral studies on regional marketing systems in Ecuador explored interdisciplinary areas, mixing geography, planning, anthropology and history. Before he completed his doctorate he was hired to teach social and regional planning at the University of Wales Swansea, and after the doctorate was awarded he completed a series of United Nations planning consultancies in Latin America. At Swansea he directed the Masters Program in Social Planning, and also established and directed a new Masters Program in Regional Development Planning. All of his work there was oriented towards international development, and he played a leading role in founding the Development Studies Association and in building links with ILPES, the Latin American Institute of Economic and Social Planning. His early research focused mainly on marketing systems, regional planning, urban poverty, casual labor, informal enterprise, entrepreneurship and subcontracting.

Since moving to Albany, Ray has redirected much of his work towards the history of ideas in planning and development, and towards housing policy, community development and neighborhood planning in the United States. Unlike most planning historians, who concentrate on land-use planning and the built environment, he also has a strong interest in socio-economic planning ideas, and in rural, regional, national and international planning. He has been a member of the American Institute of Certified Planners since 1992. He has directed the Master of Regional Planning program for two extended

periods (1991-1999 and 2002-2005) and steered it through initial accreditation in 1999 and successful reaccreditation in 2004.

Fluent in Spanish and "functional" in Portuguese and French, Ray has lived nine years in Latin America. In 1997 he was a Senior Fulbright Fellow at the National Engineering University in Lima, Peru, and he has also taught courses at ILPES Santiago, CENDEC Brasilia and other institutions in Latin America. He has taught additional courses at the London School of Economics, the Beirut Arab University and the Bandung Institute of Technology, and he will soon be the first UAlbany faculty member to teach at RPI in a new inter-institutional faculty exchange.

Ray has authored numerous scholarly articles in journals and edited books. His books include *Planning for Small Enterprises in Third World Cities* (1985), and *Casual Work and Poverty in Third World Cities* (1979). With Gavin Kitching he edited Routledge's *Development and Underdevelopment* book series, and he serves on the editorial boards of SUNY Press and the journal *Planning Practice and Research*. His current research is in two main areas: the post-1940 physical transformations of Albany and the Bronx; and, the history of ideas in planning and development. Key ideas currently under study include rural reconstruction, linear cities, third way ideologies, ekistics, "national projects", and planning for decline.

Gene Bunnell Gene Bunnell, Ph.D., AICP is a planning educator with a unique combination of knowledge and experience, whose teaching and research is informed and strengthened by years of experience as a planning practitioner. Gene earned his Masters degree in City and Regional Planning from Harvard University's Graduate School of Design in 1969, and a Master of Public Health degree from the University of Michigan in 1970. After two years of working in a health planning agency in Buffalo, New York, he joined the planning staff of the Massachusetts Executive Office of Communities and Development, Office of Local Assistance, and was put in charge of preparing planning studies and plans for a number of Massachusetts communities. In the course of working in various communities, and encountering older, deteriorated areas with vacant or underutilized old buildings, he became interested in and knowledgeable about historic preservation and adaptive reuse, and researched and wrote Built to Last: A Handbook on Recycling Old Buildings, which was published by the National Trust for Historic Preservation in 1977. He also wrote an Innovative Project grant proposal on behalf of the Massachusetts Executive Office of Communities and Development, which obtained \$178,000 in funding from the U.S. Department of Housing and Urban Development, Office of Policy Development and Research, for the establishment of the Massachusetts Building Reuse Project, which he directed. Over a three year period, the Building Reuse Project prepared detailed building reuse Action Plans for four communities (North Adams, Southbridge, Haverhill and Lawrence), and produced a research report titled Removing Obstacles to Building Reuse at the Local Level.

In 1980, Gene Bunnell became Director of Planning and Development for the City of Northampton, Massachusetts, and during his tenure there the city's downtown was revitalized and transformed. While serving as Northampton's Planning Director, he also taught planning-related courses at Smith College, Hampshire College, and the University of Massachusetts-Amherst, Department of Landscape Architecture and Regional Planning-- and the idea of pursuing an academic career took root.

He began studying for a Ph.D. in Planning Studies in the Geography Department of London School of Economics in 1989 — which was made possible by an Overseas Studies Scholarship Grant from the Principals and Vice Chancellors of the Universities of the United Kingdom, as well as a scholarship from the American Friends of London School of Economics. After earning his Ph.D. degree, he joined the faculty of the Department of Urban and Regional Planning at the University of Wisconsin-Madison, where he taught for six years. After returning back east in 1998 so that his wife could accept a position in New York City, he taught planning courses in the Urban Studies Program at Vassar College, and at the New School University. He also undertook a major research project (involving a nationwide survey of urban planners, over 150 in-depth interviews and extensive field research) uncovering and documenting the ways in which ten different American cities were shaped by planning. The product of this research, *Making Places Special: Stories of Real Places Made Better by Planning* (Planners Press) was published in 2002. He joined the faculty of the Department of Geography and Planning at the University at Albany as Associate Professor in the Fall of 2003.

Youqin Huang Dr. Huang received her Ph.D. in Geography from University of California, Los Angeles in 2001. Since then she has been a member of the Department of Geography and Planning and a Research Associate of Center for Social and Demographic Analysis (CSDA) at State University of New York, Albany. Her research has mainly focused on two areas: one on housing, residential mobility, neighborhood change and urban structure, and the other on migration and urbanization. She also has a regional focus on China. In the area of housing, Yougin studies decision-making in housing behavior, and how residential mobility and housing choice influence the urban landscape and commuting pattern. In addition to housing behavior and residential mobility in the U.S. and U.K. and the role of gender, race and life cycle, Dr. Huang studies the profound market transition in China and its impact on housing consumption and provision. She finds that housing condition and homeownership have improved significantly in the recent decade in urban China; yet, she finds housing inequality is increasing and an unprecedented residential segregation is emerging. She also finds that despite the increasing importance of market forces, the socialist institutions persist and continue to affect housing behavior. In the area of migration, Huang studies the spatial pattern and dynamics of female migration and the occupational attainment of female migrants in China. She finds that Chinese women, constrained by both socioeconomic and institutional factors, utilize marriage migration to access economic opportunities brought about by the economic reform. She also finds that gender, together with the socialist institutions, affects female migrants' occupational attainment at the destination.

Currently, Dr. Huang is involved in five projects. First, she is studying migration/mobility in the U.K. using the British Household Panel Survey data. With her collaborator, she is studying the effect of family migration and residential move on women's participation in the labor market. Because of the intertwined relationship between long-distance migration and short-distance move, they are also studying the dynamic decision-making between the two processes, and they hope to bridge two often separate literatures (one on migration, the other on mobility) for a better understanding of the decision-making. Second, Dr. Huang is conducting a longitudinal research on housing behavior in China. While most of the limited research on housing in China focuses on the recent reform era, Dr. Huang is trying to study housing behavior and residential

mobility in both the socialist era and the reform era, which will demonstrate the importance of political economy on housing decision-making. Third, Huang is studying gated communities in urban China. With housing privatization and increasing housing inequality, wealthy gated communities are emerging rapidly in Chinese cities; yet, they have a very different root and social and political construction. Dr. Huang is conducting a comparative study of gated communities with those in the West, hoping to provide a broader framework to incorporate empirical evidences from different regions. Fourth, Dr. Huang is studying housing inequality and residential segregation in China, using both census data and information collected through fieldwork. Funded by the AAAS and NSF, Dr. Huang visited Hong Kong Baptist University during the summer of 2004 and established collaborative relation with Professor Li, an expert on housing studies. Five, Dr. Huang is involved in a collaborative project on housing reform and socio-spatial restructuring in China. With collaborators from Hong Kong, the U.S. and U.K., she is studying recent census data of China and is preparing to conduct a multi-city survey in China.

In addition, Youqin has been actively involved in the Urban China Research Network (UCRN), an international multidisciplinary organization to promote research on urban China and to foster the next generation of China scholars. As a member of the International Advisory Board and a member of the Steering Committee, Dr. Huang (with others) organized and oversaw several rounds of small grant competitions, several conferences and workshops, and two research working groups.

Andrei G. Lapenas Andrei was born in 1958 in Leningrad (now St. Petersburg), Russia. His interest in science was triggered at the age of 14 by a wonderful book, *The Living Sea*, written by the French explore and engineer Jacques-Yves Cousteau. The fascinating stories about exploration of oceans literally dragged him into the science of oceanography. In 1975 Andrei enrolled in the Leningrad (now St. Petersburg) University in the Department of Geography. One year later he declared his major in oceanology and during the next 4 years participated in sea expeditions to the Baltic, Northern, and Norwegian Seas, Southern and Central Atlantic, the Bay of Guinea, and Canary Islands.

After graduation Andrei jointed the Department of Climate Change at the State Hydrologic Institute. Two of his Ph.D. advisors in this institute- the founder of physical climatology, Professor Mikhael Budyko, and atmospheric physicist Dr. Nora Buytner-suggested that after Ph.D. studies Andrei should concentrate on the impact of fossil fuel burning on the global carbon cycle and climate. An understanding of the global carbon cycle dynamics is the key to future forecasts of the atmospheric concentration of carbon dioxide and the prediction of global greenhouse warming. In 1980s, many carbon cycle scientists tried to resolve the so-called "missing sink" problem. At that time Andrei and his co-workers investigated carbon cycle in World Ocean, but were unable to identify any additional sinks of atmospheric carbon in marine ecosystems. Therefore, in 1990s, Dr. Lapenas brought his attention to the continental biota and terrestrial cycle of carbon. This interest in the interaction between atmosphere and living organisms made Dr. Lapenas appreciate the importance of soil as a mediator of many of these processes and that it is a very important component of the entire climate system.

During the past 13 years Dr. Lapenas worked in the United States at New York University (1992-1996) as a post-doctoral fellow under the famous oceanologist and atmospheric

physicist Professor Martin Hoffert, and since 1996 as an assistant, associate professor at the University at Albany. At SUNYA, Dr. Lapenas teach and perform research in the Department of Geography and Planning and in the Department of Earth and Atmospheric Sciences. Dr. Lapenas is an author of more than 50 papers in such journals as *Nature*, *Climate Change*, *Global Change Biology*, *Global Biogeochemical Cycles* and others. His work was supported by such federal agencies as the *National Science Foundation*, *United States Forest Service* and *Environmental Protection Agency*.

Catherine T. Lawson (Ph.D., Urban Studies/Regional Science, Portland State University, 1998). Dr. Lawson has extensive training and real-world experiences in computer applications and applied statistics. Her undergraduate education in Economics and Accounting at Western Washington University, and her graduate work at Portland State University in Economics and Regional Science, provides her with a wealth of knowledge on the use and state-of-the-art practices in these areas. Her experiences as a practicing planner for the City of Portland, in Portland, Oregon, were focused on statistical applications as well. She developed a number of methodologies used to determine the appropriate protection of environmentally sensitive areas and in the utilization of land. She is able to introduce students to the use of computers and statistics using these real world datasets and reports.

Dr. Lawson has a strong background in transportation research and planning, including ground-breaking survey work with the freight community, the use of microsimulation modeling for transportation planning, transit planning and alternative transportation planning, including bike and pedestrian modes. She gives her students hands-on opportunities to learn how to use the various software applications, particularly transportation modeling packages such as VISSIM and TRANSIMS. She recently introduced PLN 545 Transportation Technology Practicum to the MRP Program. In this course, students use a variety of technologies, including global positioning systems (GPS), open source and ESRI geographic information systems (GIS) and new software being developed in her Regional Economic Freight Informatics Laboratory (REFIL). The WIMWEB research project is being funded by the Federal Highway Administration, and was mandated by Congress to examine the impact of very heavy trucks in Vermont and Maine.

Dr. Lawson is responsible for Transportation Planning, with a substantial contribution from Jeff Olson (a nationally recognized expert in Bicycle and Pedestrian Planning). Dr. Lawson communicates the importance of understanding the impact of infrastructure development on the quality of life for community members. In addition to traditional transportation planning techniques, she also emphasizes the need to plan for specific modes, including trucks, ferries and emerging forms of transit. She incorporates microsimulation applications to transportation planning and provides students with hands-on experience with transportation modeling software and national data sets. Students are encouraged to include transportation courses at Rensselaer Polytechnic Institute (RPI) through a joint-program agreement.

David A. Lewis Before he joined the University at Albany as Assistant Professor in 2003, David Lewis was a Post Doctoral Fellow for the National Center for Neighborhood

and Brownfields Redevelopment at the Bloustein School, Rutgers University. In 2009 Dr. Lewis achieved the rank of Associate Professor. Dr. Lewis' research interests have focused on the intersection of innovation, regional development and environmental change, technology business incubation, brownfields redevelopment, the economic development of mature industrial regions, and the evaluation of public policy. David holds a Ph.D. in Urban Planning and Policy Development and Master in City and Regional Planning from Rutgers University, as well as a B.A. in U.S. History from Rutgers University. Currently, Dr. Lewis is working various research projects include: 1) A national study of business incubation for the U.S. Department of Commerce; 2) a regional sustainability plan for the Capital District; 3) a transfer of development rights program for two non-profit organizations and 4) a guide book for developing scenic byways. Recent publications: include The Incubation Edge: How Incubator Quality and Regional Capacity Affect Technology Company Performance published with National Business Incubation Association, a literature review for the U.S. Department of Commerce on technology business incubation practices and evaluation, a national survey to benchmark technology incubators in the U.S. and explore the role of geography in the performance of technology incubators, a feasibility and implementation report for a food technology center with a shared—use kitchen incubator, and the potential for small, rural metropolitan regions to foster, attract, and retain technology entrepreneurs for the Department of Energy. In addition, Dr. Lewis has been called to testify to the U.S. House of Representatives regarding the efficacy of business incubation.

James Mower Dr. Mower's path to academic geographic work led through a network of seemingly disparate but ultimately reinforcing interests. In his undergraduate studies at the State University College at Geneseo in 1973, he worked toward a degree in English. At the time, his interests in American Transcendentalism led him to explore of its roots in eastern philosophies, especially Taoist and Confucian traditions, and from there into a study of Chinese poetry and then the language itself. Jim's focus gradually expanded to East Asian cultural and regional studies, including Altaic peoples and languages.

In his first round of graduate work at Indiana University in 1980, he intended to continue Chinese language studies within a Master's program in Linguistics. Part of this work involved the study of interactive computing technologies in support of English language acquisition. Though not a central part of his degree concentration, computing experiences at Indiana grew to become one of the most dominant themes in Dr. Mower's professional research.

Throughout his career, and like so many of my students and colleagues, Jim has had a lifelong interest in maps, whether as a collector, as a cartographer, or as a virtual explorer. He has always been fascinated by the ways that maps model the physical world into perceptible, coherent forms. Maps had always been fundamental tools of his research but had never been its central focus until, working as a teacher of English as a second language at the University At Buffalo in 1981, Dr. Mower began to explore further graduate studies in the department of Geography. During a meeting with David Mark, who would later become his PhD advisor, he discovered that interests in mapping and computing neatly fit into the emerging field of geographic information systems. His dissertation research area narrowed to automated cartographic applications that relied on computing methodologies drawn from expert systems and artificial intelligence

paradigms in computer science. Although this work in automated cartography and GIS has expanded over time, Dr. Mower's work remains centered in these areas.

After coming to the University at Albany in 1987 Jim developed interests in parallel computing technologies. Since many spatial data sets rely on dense grid sampling strategies, it seemed natural to apply large-scale single instruction stream, multiple data stream (SIMD) computing techniques to solve such problems as drainage basin analysis and aspects of cartographic symbolization. With access to the Thinking Machines CM-2 and later the multiple instruction stream, multiple data stream (MIMD) CM-5 computers at the Northeast Parallel Architecture Center at Syracuse University, he created a wide variety of parallel computing applications in GIS, focusing on potential speedup values over sequential computing.

Dr. Mower's later work, continuing until the present, has returned to his root interests in cartographic visualization. This body of research concerns real time 3D visualization of the environment using techniques from augmented reality. He is currently pursuing a patent for numerous aspects of the technology that he invented for that work. Jim will most likely continue working along these lines, probably extending it into specific application areas as stable implementations of the core services mature. Dr. Mower expects to apply some of this work to automated pen and ink landscape depictions over his sabbatical leave in the Spring 2005 semester.

As interest in and familiarity with GIS has become more commonplace across the University campuses, Jim has served on a vast number of MA thesis and seminar committees. He has also taken an active role in shaping the Information Science PhD concentration in GIS and has chaired and served on several doctoral committees. He is currently convener of a panel to reorganize the INF GIS concentration in light of new and changing faculty expertise within the University.

As a consequence of his core interests in computing issues, Dr. Mower has served at various times on University and College level committees concerning, among other things, faculty support issues related to computing access. He expects to continue to do so after returning from his sabbatical leave.

John Pipkin Dr. Pipkin joined the University in 1974, as a specialist in transportation and statistical methods and he developed undergraduate and graduate curriculum in these areas, and he participated in collaborative work with members of the Business School. His interested broadened to take in urban social geography, resulting in collaborative work with sociologists. He has taught many urban-oriented courses in the department. His interests in statistical applications and spatial analysis persist, but in recent years his main interests have centered on the built environment from an historical perspective, urban design and the history of public space, and nineteenth century landscape understandings, particularly the work of Henry David Thoreau. Dr. Pipkin's interest in local history and architecture have resulted in many presentations and lectures to local groups, and leading to his participation as a joint-organizer in the University's Albany Heritage Semester (Fall 2002). John has been active in faculty governance. He has served on the SUNY-wide Faculty Senate, and chaired the University at Albany's Senate (2002-3). Has also been active in the Middle States Division of the Association of American Geographers, serving as President twice (1988, 2003). From 1995-1999 Dr.

Pipkin served as Dean of Undergraduate Studies and Associate Vice President for Academic Affairs. This is a full-time (but not permanent) administrative role filled by a senior faculty member. Pipkin had oversight (under the Provost) of advisement, academic support, interdisciplinary honors, Presidential Scholars, General Education, Project Renaissance, and related programs. Among other initiatives in this role he chaired the University's Retention Task Force and developed (with Gary Gossen) an interdisciplinary course for high achieving undergraduates, *Foundations of Great Ideas*, in which he continues to teach whenever possible. He also oversaw the beginning of Albany's current General Education program. Dr. Pipkin was appointed to the interdisciplinary Ph.D. faculty in Information Science in 1992, was made a Collins Fellow in 2001, and was promoted to Distinguished Service Professor in 2003.

Corianne P. Scally (Ph.D., Urban Planning & Public Policy, Rutgers University, 2007). Dr. Scally has a B.A. in International Affairs and a Master's in Science in Planning from Florida State University. Before pursuing her Ph.D. at the Bloustein School of Planning and Public Policy at Rutgers University, she worked in affordable housing development and industrial business retention and workforce issues on the westside of Chicago for several years. In these professional planning positions with nonprofit organizations, she was consistently frustrated with the various policy barriers that made her job of revitalizing communities and offering assistance to businesses and households so difficult. This shaped her research agenda on understanding the forces that influence policymaking and planning for housing, especially at the level of state government. She has pursued these interests through research on state housing policy, state housing finance agencies, and statewide nonprofit housing coalitions. Dr. Scally has published on state housing policy innovation in California and New Jersey in Housing Policy Debate (with Victoria Basolo) and by state housing finance agencies in the *Journal of Planning* Education and Research. Her research also continues to be concerned with how lowincome communities can overcome policy-related obstacles placed in their paths. This is evidenced by her work with Norman Glickman (Rutgers) on community organizing and urban education reform, published in the *Journal of Urban Affairs*, and her research on providing housing for ex-offenders published in *Shelterforce*. Scally has presented her work at multiple peer-reviewed conferences hosted by ACSP and the Urban Affairs Association, and has given invited talks at an APA conference, as well as to audiences in Delaware and Washington, D.C. With David Lewis, Scally developed a training module and manual for a survey initiative of the Erie Canalway National Heritage Corridor, and conducted three training sessions for volunteers throughout Upstate New York. Her current research includes survey, document analysis and interview research on state associations of community development corporations, and a quasi-experimental evaluation of the household-, project-, and community-level effects of New York State investment in housing through the Low Income Housing Tax Credit and Housing Trust Fund programs.

Christopher J. Smith Chris Smith is Professor in the Department of Geography and Planning, Last year he was Fulbright Scholar-in-Residence with the Hong Kong America Center, and was also appointed as Visiting Professor in the Department of Geography and Resource Management at the Chinese University of Hong Kong. Dr. Smith is an urban geographer whose research and teaching interests are in the area of urban social

problems, including health and health care delivery, homelessness, and mental illness. Within the last decade most of Chris's research focus has shifted to East Asia, especially China, and his recent work has been concerned with the social and cultural consequences of China's transition away from socialism; the majority of his work in this area has been summarized in two books, one written in 1991, the other in 2000, as well a number of journal articles. He is particularly interested in the implications of modernization and economic development in China's largest cities, and the transformation and (sub) urbanization of the Chinese countryside. His recent research publications include a number of articles dealing with migration, urbanization, and health care delivery issues in Chinese cities. The published articles dealing with these issues have investigated the adverse human health consequences associated with rapid urbanization and modernization, in conjunction with the economic reforms that have resulted in higher incomes in most parts of China. Dr. Smith has also been involved in studies of migration from the Chinese countryside to the cities, with a particular emphasis on issues of adjustment and identity among transient or "floating" populations in the receiving areas (the cities); and the economic and demographic implications of the out-migration phenomenon for the sending regions (the rural areas).

In his most recent work Dr. Smith has begun to look at several distinct but closely interrelated sets of issues. The first of these deals with the issue of disease and modernity in China, focusing on state discourse and public health policies adopted to deal with catastrophic urban-based diseases in China. This research looks at the plague outbreak at the end of the 19th Century, and the reemergence of STD's and the emergence of HIV/AIDS in contemporary China. The second project considers the proposition that China has now passed "through" its modernization phase, and has firmly entered an era of postmodernity. The third project involves an investigation of dissidence, discontent, and public acts of resistance in contemporary China.

On the basis of his wide knowledge and extensive research focusing on contemporary China, Chris was one of the pioneers of the University at Albany's Urban China Research Network. He received, along with Albany colleagues, funding for the Network from the Andrew W. Mellon Foundation, for an initial three years, in 1999. The network is intended to be multi-disciplinary and multi-institutional, effectively establishing a 'virtual center' to conduct and support research and training activities focusing on internal migration and its impacts on urbanization in contemporary China. All activities will be coordinated from Albany, but the Advisory Board for the network is made up of scholars based in North America, Europe, Hong Kong, and China. By design, the Board members represent a broad range of disciplines, including sociologists, demographers, geographers, urban planners, political scientists, historians, anthropologists, and economists. In its first 18 months the Network has successfully launched two rounds of the Student (PhD) Research Program; one round of the New Faculty Grants Program; and has selected two "working groups," which will be funded for three years to conduct research and write research proposals dealing with the nature and outcome of the process of urban transformation in China. Dr. Smith acts as the Albany-based coordinator and consultant for one of the two working groups that is investigating the urban transformation in China and the reorganization of the state in an era of globalization; and he is also coordinator of second working group focusing on the relationship between migration and the spread of HIV/AIDS in China.

Roger Stump Roger Stump is Professor of Geography at the University at Albany, State University of New York, where he has taught since 1982. He also holds a joint appointment in the University's interdisciplinary Religious Studies program. He completed his undergraduate education at the University of Kansas with a double major in French and English. He received a master's degree in library science from Indiana University, and after working as a librarian for several years returned to the University of Kansas to complete a doctorate in geography. At the University at Albany he has taught a variety of courses in cultural geography, other aspects of human geography, and quantitative methods. In 1990 received the SUNY Chancellor's Award for Excellence in Teaching. In the early 1990s and again in the early 2000s he served as Chair of the Department of Geography and Planning. In the middle 1990s he also served as Associate Dean of Undergraduate Studies. In the latter capacity, he oversaw the University at Albany's General Education program. In 1998-99, he served as the Chair of the University Senate, and in that capacity also served as the faculty representative on the University at Albany's University Council.

Professor Stump has published numerous articles and book chapters dealing with various aspects of cultural geography, with a particular emphasis on the geography of religion. In 1986 he edited a special issue on the geography of religion for the *Journal of Cultural Geography.* His research on the geography of religion has covered a variety of topics, including regional variations in the determinants of religious behavior, the persistence of ethnic parishes in the Roman Catholic Church, the historical geography of the Disciples of Christ, and the global spread of religious broadcasting. Most recently, however, it has focused on religious fundamentalism and other forms of religious conflict. In 2000 he published the first geographical monograph dealing with religious fundamentalism, Boundaries of Faith: Geographical Perspectives on Religious Fundamentalism (Rowan and Littlefield). Based on that work, he was an invited speaker at a symposium entitled "Democracy and Religion: Free Exercise and Diverse Visions" held at Kent State University in 2002 and will be an invited speaker at a symposium on "The Clash of Knowledges" sponsored by the University of Heidelberg in April 2006. He also contributed a major chapter on religion and war to *The Geography of War and Peace*, edited by Colin Flint (New York: Oxford University Press, 2004). Finally, he is finishing work on a second monograph, *Placing the Sacred: The Contextuality and Spatiality of Religions*, under contract with Rowman and Littlefield, currently planned for publication in 2007. Beyond that, future research interests include the political dimensions of early Calvinist theology and practice and the rise of fringe fundamentalist groups in the United States in recent decades.

Summary of University at Albany Affiliations of Full-Time Faculty

Professor Bromley holds a joint appointment with the Department of Latin American, Caribbean and U.S. Latino Studies and is a member of the Public Policy Faculty. Additionally, he is on the Board of the SUNY Press and has an extensive list of collaborations with other universities.

Professor Huang is also a research associate at the Center for Social and Demographic Analysis (CSDA) and is joint appointed in East Asian Studies, with which some of her courses are cross-listed. She is a member of the Steering Committee of the Urban China Research Network, which is part of the Lewis Mumford Center.

Professor Lapenas holds a joint appointment with the Department of Earth and Atmospheric Sciences and collaborates on a regular basis with scientists from NY University (Biology Department), the U.S. Geologic Survey (NY, MA and CA offices), the U.S. Forest Service (NH), and internationally with the International Institute for Applied and System Analysis (IIASA, Laxenburg, Austria).

Professor Lawson has an adjunct position with the Public Policy Program on the Downtown Campus, is part of the Informatics faculty, is an Associate of the Center for the Elimination of Health Disparities, and Chair of the Task Force on the Built Environment. She also does joint research with Kirsten Davison in the School of Public Health (East Campus) and is a member of the University Transportation Research Center (UTRC) at CUNY. Additionally, she collaborates regularly with the Portland State University Center for Urban Studies, the Washington State University Transportation Research Group, and the University of Washington Transportation Center.

Professor Lewis is currently collaborating on projects with, the University of Michigan, U.S. Department of Commerce, the Capital District Regional Planning Commission (CDRPC) and the Capital District Transportation Committee (CDTC), and researchers at the Department of Architecture, Urban Planning and Design at the University of Missouri-Kansas City. He is also working with the CDPA on building an Alumni network and has recently completed a study for the Hudson River Valley Greenway and the National Park Service. Within UAlbany his is a member of the Public Adminstration and Policy faculty and a research faculty with the Lewis Mumford Center.

Professors Mower and Pipkin are on the Information Science interdisciplinary PhD faculty, and Pipkin also regularly participates in interdisciplinary (UNI-) teaching in the Presidential Scholars program.

Professor Smith is an international known researcher on urban China and Director of the Globalization Studies Major.

Professor Stump is on the Information Science interdisciplinary PhD faculty, and is also affiliated with the Religious Studies program.

Adjunct Faculty Engagement

The Department is fortunate to have a distinguished group of adjunct and affiliate faculty, several of whom play are important role in the current USP program, and who will continue to do so in the revised program. Adjunct faculty who have made recent and substantial contributions to Urban Studies and Planning instruction are the following:

Paul Bray JD 1968, (Columbia) is a lawyer and writer active in environmental and planning law, public affairs, and historic preservation in the Albany region. He served for 29 years as Senior Counsel the New York State Legislative Bill Drafting Commission. In this role he drafted many important laws including "State Environmental Quality Review Law," "Urban Cultural Park Act," an "New York State Historic Preservation Act." He also served to 16 years as General Counsel to the Hudson-Mohawk Urban Cultural Park Commission. Mr. Bray writes a monthly column in the area's principal newspaper, the *Times Union*, and is very active in local civic associations. He has served as Director of the Sierra Club (Atlantic Chapter), Washington Park Conservancy, New York Parks and Conservation Association, and Historic Albany Foundation. He is the

founder an President of The Albany Roundtable. Mr. Bray regularly teaches for the department at the undergraduate and graduate level on Parks, Preservation, and Heritage Planning.

Todd Fabozzi MRP 1994 (University at Albany) began his professional life as a social studies teacher. Since 1996 he has served as Program Manager and GIS Specialist with the Capital District Regional Planning Commission, Albany, NY. He develops, manages, and maintains the Commission's GIS systems, water quality program, and also works on regional growth analysis and smart growth, having made more than 40 presentations to date. Some significant achievement include: GIS coverages for the FAA for eight NYS airports, and service as a technical advisor on similar programs; development of systems for the Welfare to Work program of the Capital District Transportation Authority, and membership on many public and policy development groups, including NYS Local Government GIS Workgroup and the Capital District Transportation Committee's taskforces on the Future, and Quality Regions. Mr. Fabozzi has taught advanced GIS courses for the department since 1998.

Rocco Ferraro MCRP, 1975 (Ohio State University) is Executive Director of the Capital District Regional Planning Commission, where he previously served as Director of Planning Services. His previous appointments include Principal Planner with Edwards and Kelcey, Saratoga Springs, and Planner for Toledo-Lucas County. Mr. Ferraro has served as Vice President and Director of Legislative Affairs of the New York Upstate Chapter of the APA, and other his other memberships include Town of Clifton Park Environmental Conservation Commission, and the Landuse Advisory Committee of the New York State Legislative Commission on Rural Resources. Mr. Ferraro has been involved in many types of planning, including zoning, commercial revitalization, economic development, bicycle planning, land use analysis, and housing studies. He regularly teaches a core course in the Urban Studies and Planning major, "Introductory Urban Planning."

Glenn Harland MA (Geography, University at Albany, 1994) is currently with New York State Office of Children and Family Services. He previously served as a GIS Analyst with Applied GIS, and has consulted widely on GIS and computing topics. Long associated with our department, Glenn has taught GOG 101 "Introduction to Physical Geography" for ten years.

Christopher O'Connor (MA Geography, University at Albany 2002) is currently a GIS specialist with the Institute for the Application of Geospatial Technology, Inc, and previously worked with the New England Interstate Water Pollution Control Commission. He has served as mapping activities coordinator for FEMA flood insurance studies, and has acted as technical advisor on various environmental issues. He regularly teaches GIS for the department.

Jeffrey Olson MA (Empire State College, 1994), R.A., is an architect and planner in private consulting practice in the Capital Region. He specializes in the development of green infrastructure, and has a particular interest in pedestrian and bicycle planning. He has served as Director of Millennium Trails (Office of US Secretary for Transportation), and as Pedestrian and Bicycle Program Manager for NYS Department of Transportation. He was project leader of the award winning Greenway Project in Grand Canyon National

Park, and has received many other honors and awards. He co-directs the University's Initiative for Healthy Infrastructure with Prof. Catherine Lawson. He has authored many works including *The New York State Bicycle and Pedestrian Plan*, 1997. He developed for the department what may well be the first university-level course in Bicycle and Pedestrian Planning in the United States which he teaches at the graduate and undergraduate level.

S. *Thyagarajan* FIIA, AICP, has degrees in city & regional planning and architecture. He is currently Director of Urban & Regional Planning at Energy Answers Corporation, Albany, NY. In his career in regional planning from 1963 to 1982 he was responsible for the development of regional plans for the Baltimore, Detroit, and Albany, and for the Belgrade Region in present-day Serbia. He served as the chief transportation planner for the London region from 1970-72 and consulted for the UN Development Program in South Korea in 1974. He served as Deputy Executive Director of the Tri-State Regional Planning Commission (NY Metro Area) from 1980-82. From 1984-96 he directed a bureau staff at the NYS Division for Youth as the Director of Facilities Planning and Development. Active as a volunteer in Albany NY for many years, he is on the boards of various local organizations involved in health and human services, has served on the Mayor's Committees on retailing, downtown and urban design, and on the Albany Civic Forum, Riverfront Action, and Albany Land Use Advisory Committee of the State Commission on the Capital Region. "Thyag's" long-standing role in teaching with the Department currently involves work in graduate and undergraduate courses and studios in urban design, site planning, comprehensive planning, and international urban planning.

Historical Context

Structure of the Existing Faculty-Initiated Major in Urban Studies and Planning

The following are the requirements of the existing major.

General Program B.A.: A minimum of 36 credits including:

- 18-19 credits of required core courses from the following list: AGOG 125M, 225 or 225Z (formerly 120 or 120Z), APLN 220 and any three from: AGOG 220, AGOG 321M/AEAS321M/ALCS 321M, AGOG 324, AGOG 328/APLN 328/AWSS 328, AGOG 330/APLN 330, AGOG 480, APLN 315Z, APLN 320Z
- Four planning courses at the 400 or 500 level. Registration in 500-level courses is limited to seniors who obtain the permission of the program director and of the course instructor.
- Two courses in one cognate discipline: Anthropology (AANT 119N, 334, 372 or 372Z), or Economics (AECO 341 or 341Z, and 456Z), or Education (EEDU 427, and either 400 or 401), or History (AHIS 303Z, 317 or 317Z, 318 or 318Z), or Political Science (RPOS 321/RPUB 321, RPOS 323, RPOS 424), or Sociology (ASOC 373 and 375).

The three required course for the USP major are:

- AGOG 125 (The American City)
- AGOG 225 (World Cities)
- APLN 220 (Introduction to Urban Planning)

These three courses provide an account of the history and current state of affairs in the US city; an analysis of urbanization and its associated problems in cities around the world; and an in-depth investigation of the history and current practice of urban planning in the USA. Student electives from the other courses listed (see above), ensure that they (students) are able to complement this core of knowledge either with a more detailed focus on some of the core issues in urban studies, as in the case of Urban Geography (GOG 220), Advanced Urban Geography (GOG 480), State and Regional Planning (PLN 315), and International Urban Planning (PLN 320); or specific course that develop themes related to urban issues, such as Gender Space and Place (AGOG 328/APLN 328/AWSS 328).

Majors in the USP program are also required to take four 400-plus level courses in Planning, which they usually begin after completing several of the core courses (see above). It should be noted that many students take at least one GIS course in this category, and either one or two Internship courses, which are not required but are highly recommended.

The interdisciplinary status of the USP major requires student to register for two courses in <u>one</u> of the <u>six</u> cognate disciplines listed above, namely: Anthropology, Economics, Education, History, Political Science, Sociology. In reality, the list of available course in each of these departments varies from one year to the next,

and with such factors as faculty leaves and new hires. This has been one of the major problems students have encountered in fulfilling the requirements of the USP major, and it has meant that the program advisors have had to, on some occasions, exercise discretion in this matter, for example, by allowing students to "mix-and-match" courses from two different cognate disciplines, and to use courses developed in other departments since the most recent revision of the USP requirements.

In the recent Self Study and Compact Planning processes it was decided to propose USP as a full departmental major. In addition, we felt that the USP major could be strengthened in a number of ways, including the following:

- improving and streamlining the sequencing of courses and reducing redundancy among both core and elective courses; for example, we will examine the status of , or Explorations in the Multi-cultural City (AGOG 321M/AEAS 321M/LCS 321M) and modify, revive, or purge it.
- revising the list of cognate course offerings to purge course that are no longer being offered, and to search for new courses that can be offered at regular intervals in other departments;
- offering new and more 'marketable' courses, including a required methods courses for all USP majors (spatial statistics, GIS, or Remote Sensing), and environmental studies specialty courses;
- improve and extend faculty-student interactions by delegating advisement to more faculty members, especially those specializing in planning fields;
- improve gender and ethnic/racial diversity within the major, by developing local area high school outreach programs which will be offered and staffed by Departmental faculty and a dedicated GA;
- extend the pool of internship opportunities available to USP majors, by networking more effectively with Capital District-based planners and urban professionals, and by surveying past and present internship supervisors;
- improve the experience of internships (for both USP majors and for the agencies offering the internships) by providing more specifically useful and transferable skills in the core and elective courses, including GIS training, upper-level writing courses, and environmental studies courses;
- improve community service and service learning opportunities, in part by increasing the availability of and access to internships, by increasing the number of workshop courses within the major, and by high-school outreach programs;
- improve alumni tracking, which would help to increase the pool of potential internship opportunities (within the local area), and to expand the Department's network of urban studies and planning scholars and practitioners (both nationally and internationally).

The new major proposal addresses many of these concerns. The complexity of the requirements is substantially reduced. A methods course is now mandated, and so is a community engagement experience such as an internship. In the revised program the cognate requirement is simplified and more flexible, without diminishing the exposure to other urban-oriented disciplines. Many of the other improvements to the USP program suggested by our Self-Study and external review are not curricular, but are ongoing in the department. For example we have made serious efforts to track alumni and keep in touch

we them, to develop varied internship contacts more aggressively, and to involve more department faculty in advisement and mentoring.

Regional and National Context of the Program

Geography and Planning are cognate disciplines with a rich dynamic history of reflexive interactions that strengthen them. The University at Albany's Department has demonstrated the benefits of this relationship and seeks to further nature the success of its Urban Studies and Planning program within this framework.

Contemporary geography is an eclectic, holistic discipline examining, from the spatial perspective, the interaction of physical and human environments, of place, and the organization of space. Broadly, the discipline can be divided into three realms – physical geography, human/cultural geography, and geographic information systems/science (GIS). Geography is, however, more than just a discipline; it is a way of thinking and conceptualizing, of interpreting global events and the world and its components from the dynamic spatial perspectives of scale, area, and distance, which form the theoretical underpinnings of the subject. Spatial thinking and reasoning are increasingly recognized as critical components of education (Learning to Think Spatially, National Research Council Report, 2006). The technical capabilities and advancements in GIS technology and the web are forging new ways of thinking and interpretation, providing unprecedented opportunities for planning, environmental management, and the everchanging urban global economies of the 21st century. As such, undergraduate training in the spatial perspective, i.e. geography, must provide solid foundations in the physical, cultural, and information management technologies.

The field of Planning is a forward-focused, interdisciplinary, professional-oriented academic discipline that incorporates the spatial reasoning of geography with the theories and methods of economics, political science, sociology, architecture, engineering and environmental science. While there are many definitions of planning, they all contain the same essential qualities. Planning is evidence-based, a forward focused:

"dynamic profession that works to improve the welfare of people and their communities by creating more convenient, equitable, healthful, efficient, and attractive places for present and future generations.

Planning enables civic leaders, businesses, and citizens to play a meaningful role in creating communities that enrich people's lives (American Planning Association 2010, http://www.planning.org/aboutplanning/whatisplanning.htm)."

It is inherently place-based as communities evolve in time and space in a dialectical relationship with the physical and social environment. The two disciplines, geography and planning, are well suited to coexist in a mutually beneficial relationship in a single academic department. There are numerous examples of dual discipline departments that include planning, including: The Geography and Planning Department at Grand Valley State University; The Department of Geography and Planning at the University of Akron; The Department of Geography and Planning at California State University, Chico; The Department of Geography and Planning at Appalachian State University; Geography and

Planning Department at Buffalo State, The State University of New York; The Geography and Planning Department at Westchester State University; The Geography and Planning Department at University of Toledo; the Department of Geography and Planning at Westfield State College; or the School of Geographic Sciences and Urban Planning at Arizona State University, to mention a few.

To the best of our knowledge there is no national organization that keeps data specifically on urban studies (as opposed to planning) programs in the United States. The program established at UAlbany is a unique bidisciplinary venture, and although we are aware of other similar programs around the country, there is nothing akin to the Association of American Geographers comprehensive surveys of geography departments. One of the problems encountered in trying to compare different urban studies programs systematically, is that they are usually linked to different departments and colleges. Some can be found in colleges of Arts and Science, as is the one at UAlbany; others are attached to or associated with graduate Urban or Urban and Regional Planning programs; still others are located in Schools of Architecture or Public Policy.

All Urban Studies programs we have been able to identify in the Northeast, along with some other programs of interest are presented in Table 3. In the Northeast there are [about] 15 programs granting a baccalaureate. At some other schools there are minor programs; geographically the closest appears to be the interdisciplinary minor Urban Studies at New Paltz. The majority of the baccalaureate programs are titled "Urban Studies." "Urban Planning" as a baccalaureate degree title tends to be reserved for professional rather that liberal arts programs; this is the strong preference of the Planning Accreditation Board. Rutgers has programs in both Urban Studies and Urban Planning located on different campuses. MIT has a department of "Urban Studies and Planning," but it grants a "preprofessional" BS degree in Planning. The data strongly suggest a unique regional niche for our program which explicitly combines urban studies and planning into one degree program. The closest analog appears to be the BS degree in "Urban and Regional Analysis & Planning" granted by the State College at Buffalo.

Farther afield, we have identified several "Urban Studies and Planning" degree programs: California State, Northridge (BA), University of New Orleans (BS), San Diego State, University of Maryland, and a similar program a Virginia Commonwealth, where they offer an "Urban Studies and Geography".

Based on our enrollment data, student focus groups and one-on-one interviews of recent graduates, these programs have not be in direct competition with Albany. Further, the data on transfer students suggests that the USP program is able to draw students from the catchment area of other program in the Northeast and buttresses the findings of student focus groups and interviews.

Table 2: Urban Studies Programs in the Northeast

| | | | | Y / |
|--------|---|--|-------------------------|------------|
| | School | Name of Program/degree | City | N |
| NY | | | | |
| | Barnard College, | | | |
| 1 | Columbia University Hobart and William | | New York | 1 |
| 1 | Smith Colleges | Urban Studies | Geneva | 1 |
| 1 | Buffalo State College | Urban and Regional Analysis & Planning | Buffalo | 1 |
| 1 | SUNY New Paltz | Urban Studies | New Paltz | 0 |
| 1 | Queens College | Urban Studies | Flushing Poughkeepsi | 1 |
| 1 | Vassar College | Urban Studies | e | 1 |
| 1 | Fordham University | Urban Studies | Bronx | 1 |
| 1 | Hunter College Long Island University, Brooklyn | Urban Studies | New York | 1 |
| 1 | Campus Milano The New School for Management and | Urban Studies | Brooklyn | 0 |
| | Urban Policy, New | No urban studies, Housing and Community | | |
| 1 | School University | development, Social Policy, Etc see folder | New York | 1 |
| 1 | New York University | Metropolitan Studies | New York | 1 |
| 1 | Pratt Institute | | Brooklyn | 0 |
| 1 | College of Mount Saint Vincent | Urban & Multicultural Education | Riverdale | 0 |
| NJ | | | | |
| NJ | Rutgers University | | | |
| 1 | Newark | Urban Studies | Newark | 1 |
| | Rutgers University | | New | |
| 1 | New Brunswick | Urban Planning | Brunswick | 1 |
| | Rutgers University | *** | | |
| 1 | Camden New Jersey Institute of | Urban Studies | Camden | 1 |
| | Technology | Urban Systems | Newark | 0 |
| | Woodrow Wilson | Orban Systems | 1 ve warn | Ü |
| 1 | School, Princeton University | Joint-Degree Programs and Certificates Urban and Regional Planning and Public Policy | Princeton | 0 |
| CN | | | | |
| CN | University of | | | |
| 1 | Connecticut | Urban Studies | Storrs | 1 |
| - | Southern Connecticut | Orban Stadies | 510115 | _ |
| 1 | State University | Urban Studies | New Haven New | 0 |
| 1 | Connecticut College | Urban Studies | London | 1 |
| MA | | | | |
| 0 | Boston University | Urban Studies and Public Policy | Boston | 1? |
| - | Northeastern | y | | |
| 1 | University | | Boston | ? |
| 4 | Conido Callere | II-ban Cardia | Northampto | 0 |
| 1 1 | Smith College Tufts University | Urban Studies Urban and Environmental Policy & Planning | n, Medford | 0 |
| 1 | Turis Omversity | Urban and Environmental Policy & Planning | Mediora | U |

Welleslev

1?

| | Worcester State | Orban Studies: | wellesley | 1; | | | | | | |
|-----|--|----------------------------|-------------------|----|--|--|--|--|--|--|
| | 1 College | Urban Studies | Worcester | 1 | | | | | | |
| | 1 MIT | Urban Studies and Planning | Cambridge | 1 | | | | | | |
| Otl | Other Urban Studies and Planning Program | | | | | | | | | |
| | Virginia Commonwealth | | | | | | | | | |
| 1 | University | Urban Studies and Planning | Richmond | 1 | | | | | | |
| 1 | University of California San Diego | Urban Studies and Planning | San Diego | 1 | | | | | | |
| | California State University | | | | | | | | | |
| 1 | Northridge | Urban Studies and Planning | Northridge New | 1 | | | | | | |
| 1 | University of New Orleans | Urban Studies and Planning | Orleans | 1 | | | | | | |
| 1 | MIT | Urban Studies and Planning | Cambridge | 1 | | | | | | |
| 1 | University of Maryland | Urban Studies and Planning | College Park | 0 | | | | | | |
| Oth | ers of potential interest | | | | | | | | | |
| 1 | University of Pennsylvania | Urban Studies | Philadelphia | 1 | | | | | | |
| 1 | Brown University | Urban Studies | Providence | 1 | | | | | | |
| 1 | University of Wisconsin, Milwaukee | Urban Studies | Milwaukee | 1 | | | | | | |
| - | | | | _ | | | | | | |
| 1 | Portland State University | Community Development | Portland | 1 | | | | | | |
| 1 | University of Toronto | Urban Studies | Toronto | 1 | | | | | | |
| 1 | University of Pittsburgh | Urban Studies | Pittsburgh | 1 | | | | | | |
| | | | | | | | | | | |

Urban Studies?

Resources

Wellesley College

For nearly two decades the Department of Geography and Planning has hosted the faculty initiated major in Urban Studies and Planning. It growth has been steady and significant. Recent external evaluations of the USP program as well as the Masters in Regional Planning indicates there is a symbiotic relationship across the planning and geography disciplines and that the undergraduate USP program is a significant pipeline for high quality students into the MRP program. The formalization of the USP major would strengthen the program and enhance its capacity to contribute to the Department's, College's and University's missions.

Formalizing and revising the USP program will be resource neutral at worst, and should create additional efficiencies with the Department of Geography and Planning. The current support staff has been engaged in the development of this proposal, and their knowledge of the administrative elements has been incorporated, with an eye to reducing inconsistencies and known barriers. Two significant problems identified are the need to deactivate some courses and revise the cognate requirements that have needed numerous advisor approved substitutions to ensure the successful graduation of our students. In essence the recommended changes should reduce the administrative effort necessary to support the USP program as currently formulated.

APPENDICES

Appendix 1: Course Descriptions

Core Courses

A USP 101 The American City (3) (=present GOG 125)

Reviews social, economic, political and physical characteristics of American cities resulting from key events (e.g. industrial development, European immigration, suburbanization, the Civil Rights Movement). Examines the relationship between these events and current urban issues. Specific topics include: de-industrialization, women in the workforce, homelessness, poverty, environmental degradation, health care, and AIDS. Considers the influence of race, ethnicity, class and gender factors on the character of cities

A USP 201 Introductory Urban Planning (3) (= present PLN 220)

Introduces the basic concepts and techniques of urban planning and provides an overview of planning history. Covers land use, transportation, environment, urban design, economic development and social issues. Explores the connections between planning and politics, economic restructuring, social change, and competing ideologies of urban form.

A USP 202 Introductory Urban Geography (3) (= present GOG 220)

Introductory survey of findings and theory of urban geography, which deals with the form and function of cities. Major themes include: history of urban form; spatial structure of modern urban systems; and the internal structure of the city, emphasizing social and economic patterns.

A USP 203 World Cities (3) (=present GOG 225 and GLO225)

Introduction to the geography of cities around the world and to the role of cities in the world system. Covers: origins and spread of urbanism in different cultural settings; levels of urbanization in space and time; urban form and land-use; rural-urban interaction; city systems and megacities; distinctive features of contemporary American cities. A GOG 225Z is the writing intensive version of A GOG 225; only one of the two courses may be taken for credit.

Methods Course: One of ...

A USP 324 The City on Computer (3) (= present GOG 324)

An introduction to the use of geographic technology in studying urban features and patterns. The course provides a conceptual bridge between introductory courses in urban geography and specialized courses in geographic techniques. Students will acquire familiarity with relevant software, data sources and methods of analysis through regular computing laboratory assignments. Prerequisite(s): any two of the following: A GOG 125, 220, 225/225Z, A PLN 220.

A PLN 375 Methods of Urban Analysis

This class will build a foundation for the lager field of statistical analysis and planning methodologies. Students will develop fundamental skills, such as data collection and presentation, descriptive analysis, and data interpretation. When the course successfully completed, students will be to identify different types of data, accurate present data in table and graphic format, describe and analysis data using statistic tools such as measures of central tendency and dispersion, conduct hypothesis testing, build confidence intervals and use these tools to analyze places.

A GOG 385 Introduction to Remote Sensing of Environment (4)

Introduction to the concepts and interdisciplinary applications of remote sensing. The basic principles of theory and practice are presented for earth resource management. Photographic and nonphotographic sensors are examined. Visual and digital image analysis techniques are introduced. Students will interpret color infrared, multispectral, radar, and other sensor imagery for a variety of purposes. Prerequisite(s): junior or senior class standing, or permission of instructor.

A GOG 390 Intermediate Cartography (3)

Techniques of reproduction graphics with emphasis on map planning and construction. Utilization of half-tone, color-key, and other production processes as models of cartographic expression. Prerequisite(s): A GOG 290.

A GOG 414 Computer Mapping (3)

Introduces the student to the fundamental techniques and applications of automated map production. Lectures include discussions of algorithm and program development as well as existing software packages. Students will also be introduced to current problems and research in automated map production. Covers a wide range of topics including but not limited to automated drafting, computer generated projections, coordinate systems and transformations, data structures and discussions of algorithms for specific applications. Prerequisite(s): A GOG 290 or permission of instructor.

A GOG 479 Fundamentals of Applied Global Positioning Systems (GPS) (3)

This course introduces students to the fundamentals of global positioning system technology as applied to the geosciences. Topics include background and history, signal structure, resolution, accuracy, data collection techniques, basic geodesy, projections and data, and applications. Field work and lab exercises complement lecture material.

Any statistics courses as advised.

Elective Courses: 12 Credits from:

A USP 315Z State and Regional Planning (3) (present PLN 315Z)

Reviews the theory and practice of state and regional planning in the United States, evaluating a range of contemporary examples. Covers metropolitan regional planning, river basin planning, regional water resource management, state planning and growth management, and environmental impact assessment. Prerequisite(s): A PLN 220.

A USP 320 International Urban Planning (3) (present PLN 320)

Provides a general introduction to urban planning as it is practiced in various countries around the world. For each of the countries covered there will be a discussion of the changing context of urbanization and economic development within which contemporary urban planning has emerged. A PLN 320Z is the writing intensive version of A PLN 320; only one of the two courses may be taken for credit. Prerequisite(s): Either A GOG 220 or A PLN 220 or permission of instructor. [GC OD]

A USP 321 (= A LCS 321 and A EAS 321) Exploring the Multicultural City (3) (= present GOG 321)

This course will explore the human dimensions and implications of ethnic diversity in the United States, focusing on New York City. The course utilizes a variety of methods to introduce students to the multicultural city, beginning in the classroom but ending with fieldwork in a specific New York neighborhood. A GOG 321 is equivalent in content to A LCS 321 and A EAS 321; only one of the three courses may be taken for credit. Prerequisite(s): A GOG 102 or 102Z or 120Z or 125 or 160 or 160Z or 220,or 240. [OD SS]

A USP 328 (= A GOG 328 and A WSS 328) Gender, Space and Place (3) (= present PLN 328)

Power relations and categories of social difference are reflected by dramatic inequalities in local environments, and in the quantity and quality of available space. This course examines, through the lenses of feminist geography and planning, how space is invested with social meaning. It discusses how the built environment affects and reflects relations of gender, sexuality and ethnicity, and considers how these social classifications produce "geographies of difference." Gender is also related to nationalism, colonialism, "geographic skills," and feminist research methodologies. Prerequisite(s): A GOG 125 or A PLN 220 or permission of instructor.

A USP 330 (=A GOG 330) Principles of Environmental Management (3) (present PLN 330)

Examines issues and problems arising from the interactions between humans and their physical environment. Explores the degradation of environmental systems resulting from human use and modification, as well as the impact of environmental processes on human systems. The policy options for dealing with environmental issues and problems are investigated. Prerequisite(s): A GOG 101 and either A GOG 201 or A PLN 220; or permission of instructor. [OD]

A USP 420 Introduction to Real Estate Development (3) (present PLN 420)

A general introduction to real estate development as an important element in the urban economy and as a field of urban planning activity. Covers legal, economic, and financial perspectives. Emphasis is placed on market analysis and mortgage finance for residential real estate. Prerequisite(s): A PLN 220, or permission of instructor.

A USP 425 Community Development and Neighborhood Planning (3) (present PLN 425)

Examines the challenges and opportunities of neighborhood and community planning, with an emphasis on older cities and neighborhoods. Assesses the relationship between neighborhood decline and other problems and obstacles faced by urban areas (e.g., concentrated poverty, loss of employment opportunities, discrimination and red-lining, fiscal disparities, etc.) Case studies of neighborhood and community development initiatives in various American cities are examined to explore the causes and consequences of neighborhood decline, and possible strategies for reversing community decline. Prerequisite(s): A GOG 125 or A PLN 220.

A USP 426 Community Development and Neighborhood Planning Workshop (1–4) (presently PLN 426)

Provides students an opportunity to obtain "real world" experience assisting a local community or neighborhood group. Students work under supervision on both team and individual projects that address specific needs of communities (e.g. housing, education, public safety, transportation, health) in the Capital District. Prerequisite(s): A PLN 425.

A USP 430/Z (= A GOG 430/Z) Environmental Planning (3) (present PLN 430)

Environmental planning is much more than preservation of pristine land. Through the examination of environmental movements, energy policy, the land use-transportation nexus, environmental justice, and environmental policy formation, at the end of this course, students will be able to: (1) identify how normative bias influences planning and policy choices; (2) describe major conflicts in environmental planning and policy; and (3) understand the relationship of scale and environmental planning/policy options. Prerequisite(s): A PLN 220 or permission of instructor.

A USP 432 Parks, Preservation, and Heritage Planning (3) (present PLN 432)

Explains the rise of heritage planning as a unifying theme to link environmental, land-use, and community planning. Integrates parks, greenways, historic preservation, and cultural resources as means to develop and preserve the distinctive character of local communities, to foster local pride, and to promote tourism. Discusses the origins, organization and management of heritage programs, and the special problems of heritage planning for minority groups and bygone cultures. Prerequisite(s): A PLN 220, or permission of instructor.

A USP 436 Landscape Planning (3) (present PLN 436)

Explores the theory and practice of large-scale landscape planning and examines issues of human use, exploitation, and protection of the landscape. Draws from the practice of

landscape architecture and community planning and outlines the principles of environmentally-based land-use planning. Prerequisite(s): junior or senior class standing, and A PLN 220 and A GOG 101, or equivalent courses.

A USP 443 Transportation History and Policy (3) (present PLN 443)

Examines the history of transportation systems and policy in the United States. Emphasis on understanding the political and social forces that influence decision-making at the federal, state, and local levels. The roles of corporate investment, and of citizen interests and participation are examined. Prerequisite(s): A PLN 220 or permission of the instructor.

A USP 449 Bicycle and Pedestrian Transportation Planning (3) (present PLN 449)

Covers planning, design, implementation and management of systems of non-motorized transportation, particularly the 'human-powered' modes of bicycling and walking. Involves students in the design of bikeways, walkways, intersections and parking facilities, and in the evaluation of alternative transportation technologies. Prerequisite(s): A PLN 220 or permission of instructor.

A USP 452 (formerly A PLN 450) CADD in Planning (3) (present PLN 452)

Applies the concepts and theories underlying Computer Aided Design and Drafting (CADD) to site planning, urban design and land-use mapping, including 2D concept diagrams, site plan detail and 3D perspectives. Also reviews rendering, 4D applications, visualization, and CADD management.

A USP 456 (= A GOG 496) Geographic Information Systems (3) (present PLN 456)

Introduction to the structure, design, and application of data base management systems designed to accept large volumes of spatial data derived from various sources. The student will learn how to efficiently store, retrieve, manipulate, analyze, and display these data according to a variety of user-defined specifications. Prerequisite(s): familiarity with maps and coordinate systems.

A PLN 460 People, Place, and Power

This course will examine the relationships between current energy supplies and alternatives that are renewable and more environmentally sustainable. It begin with defining energy then turns to an analysis of the economic, social, political, and technological factors that determine the potential a carbon free energy future. At the end of this course, students will be able to 1) identify how normative bias influences planning and policy choices; 2) describe major conflicts in energy planning and policy; and 3) understand the differences between physical/technological barriers versus economic/political impediments to sustainable energy planning/policy options.

A USP 475 Urban Design (3) (present PLN 475)

Introduction to the theory, rationale and practice of urban design. Covers design and layout criteria, regulation and review, and case studies of the urban design process. Prerequisite(s): A PLN 220 or permission of instructor.

A USP 480 Advanced Urban Geography (3) (= present GOG 480)

Explores some of the theoretical debates and empirical research conducted by geographers and planners interested in the contemporary city. Adopts a political/economy approach to the investigation of social problems currently pervasive in the capitalist city, including: inner city poverty and the underclass, homelessness, gender-related issues, racial segregation; and crime problems. Prerequisite(s): A GOG 102Z or 102 or A GOG 210 or A GOG 220.

A USP 485 Topics in Planning (1-4) (present PLN 485)

Selected topics in specific sub-fields of planning. Topics will be indicated in the course schedule and in departmental announcements. May be repeated once for credit. Prerequisite(s): A PLN 220 and junior or senior class standing.

Community Engagement. At least 3 cr. of:

A USP 437 Landscape Planning Workshop (3-4) (present PLN 437)

Creation of a landscape plan for a local or regional agency or nonprofit. Plan will balance protection of the natural and cultural environment with the need for human uses of the landscape including community growth and development. Draws from the practice of landscape architecture and community planning, and includes field research, community consultation, report writing and mapping. Students serve as team members in the preparation of the plan. Prerequisite(s): junior or senior class standing, A PLN 220 and GOG 101 or equivalents, and GIS (A GOG 496/A PLN 456 or proficient ArcView or MapInfo user skills).

A USP 474 Site Planning (3) (present PLN 474)

This course is designed as a workshop for students to be introduced to the practical aspects of site planning — a specific site in the region is studied and plans developed for future new use or renewal of the site. Experience is gained in recording site conditions, use; influence of microclimate, landform; condition of existing building on the site and adjacent to it. The site is analyzed for future potential within the context of existing community policies and regulations. Alternative proposals for future use are drawn up and evaluated for appropriateness, context, and design quality. During the course students will record, photograph, annotate site information, draw up plans to scale, develop a concise planning report incorporating data, analysis, and plan. Team work is encouraged, with small teams organized to develop projects.

A USP 476 Urban Design and Site Planning Workshop (1-4) (present PLN 476)

Involves students in supervised team projects doing practical urban design and/or site planning work. Through investigation, fieldwork and discussion, student groups prepare proposals for the design and layout of a specific site or axis. Prerequisite(s): A PLN 220.

A USP 490 Planning Internship (3) (present 490)

Provides students with practical work experience in the general field of urban and regional planning. Internship placements are typically with federal, state, or local government agencies, consultancy firms, community development corporations, or private, voluntary or political action groups specializing in a specific sub-field relating to planning. Supervisor's reference and final report required. **Internships are open only to qualified juniors and seniors who have an overall grade point average of 2.50 or higher.** Prerequisite(s): A PLN 220 and permission of instructor. *S/U* graded.

A USP 497 Independent Study in Planning (2–4) (present PLN 497)

Provides an opportunity for students with a strong interest in a specific topic or sub-field in urban and regional planning to do directed reading, independent study or research with faculty supervision. May be repeated once, but not for more than a total of 6 credit hours. Prerequisite(s): A PLN 220 and junior or senior class standing.

Appendix 2: Geography and Planning Program Trends (Source: G&P Self-Stud and UAlbany Registrar Data)

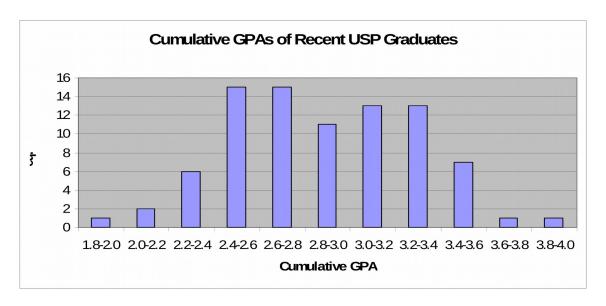
The following data (courtesy of Barbara Wilkinson) show the number of students matriculating in each of the department's programs since 2001. The current faculty-initiated USP major is the department's largest undergraduate program.

Urban Studies BA Program, Declared Majors

| Annual Cohort | Full-time | Part-time | Total |
|---------------|-----------|-----------|-------|
| 2001-2002 | 38 | 3 | 41 |
| 2002-2003 | 44 | 3 | 47 |
| 2003-2004 | 49 | 3 | 52 |
| 2004-2005 | 46 | 2 | 48 |
| 2005-2006 | 41 | 2 | 43 |
| 2006-2007 | 40 | 3 | 43 |
| 2007-2008 | 31 | 6 | 37 |
| 2008-2009 | 48 | 4 | 52 |
| 2009-2010 | 52 | 8 | 60 |
| 5-vear ave. | 42.5 | 3.3 | 45.8 |

Appendix 3: Characteristics of Recent USP students (Source: G&P Self-Study)

The distribution of the cumulative GPA for the 85 most recent graduates with an Urban Studies and Planning major is shown in the Figure below. For these 85 students the mean GPA was 2.90 and the median was 2.83, with a standard deviation of .40 Twenty of these students graduated with a cumulative average of 3.25 or greater (*Cum Laude*, or *Magna*, or *Summa cum Laude*).



Transfer vs. Freshman-admit Status Of the 85 recent Urban Studies and Planning graduates for whom transfer status could be established, 53 are listed on their transcripts as admitted to the University as freshman, and 32 (37%) are listed as transfer students. For comparison, in Fall 2004 31.3 % of all undergraduate admissions at Albany were transfers. This is a smaller proportion of transfers than in the Geography BA, and it suggests that the Urban Studies program is more attractive to "native" (freshman-admit) students.

Transfer Sources of Recent Urban Studies and Planning Graduates

(in descending order of frequency)

| Source School | Number of Transfers |
|----------------------------------|---------------------|
| Hudson Valley Community College | 5 |
| Suffolk County Community College | 3 |
| Nassau County Community College | 2 |
| Queens College, NY | 2 |
| Westchester Community College | 2 |

One transfer each:

Alfred University

Brigham Young University

Champlain College

Clarkson University

Erie Community College, North Campus

Fairleigh Dickinson University

Fulton Montgomery Community College

Herkimer County Community College

Manhattan College

Ramapo College, NJ

Sarah Lawrence College

St Johns University, Staten Island

St. Josephs, Patchogue

SUNY Binghamton

SUNY Morrisville

SUNY Oswego

University of New Hampshire

University of Hartford, NH

Like the BA in Geography, the Urban Studies and Planning Program also attracts students for a broad range of institutions in the Northeast, with the vast majority of transfers students coming from other schools in the State of New York, particularly our sister SUNY institutions. The Program has a strong appeal to students from 2 year schools in the New York City region. This outcome has two possible interpretations: on the positive side, the data suggest that the program is able to attract students from a region with a number of competing similar programs in urban studies and planning, including the ones available at Hunter College, NYU, and Rutgers University. Both program quality and value for money are the probable factors behind the student selection in this case. Combined with the findings from the BA in Geography, the conclusion that the Department as a whole is both visible to and held in high esteem by our peer SUNY schools can be made.

Gender Breakdown of Recent Urban Studies Graduates

Though we could not locate any published national statistics on gender participation in Urban Studies programs, we have made some tentative conclusions based on faculty interaction with colleagues in other programs. Based on this anecdotal data, we have estimated that the gender split national is most likely ranges for a 40-60 to 50-50 split, females to males. Within our Urban Studies and Planning the gender gap is slightly wider, 29 of the 85 current students in 2004 were female, or 34% relative to 66% male. One of the reasons for this may be the nature of the USP program. As an interdisciplinary program, without a permanent home, the program may suffer from the lack of advertising and "visibility" within the University. One potential option to improve the gender gap would be to create a permanent home department for the program by seeking official status through SUNY Central Administration. This would increase the program visibility within UAlbany, provide a forum to advertise the program more effectively, and increase resource commitments to the program by the home department's faculty and administrative by restructuring the incentives. As noted elsewhere, we have proposed a thorough restructuring of the USP major as one of the department's strategic initiatives in the new and ongoing Compact Planning process. Another way to increase the visibility of the USP major, and hopefully to attract more women into the program, is for joint endeavors between our department and the Department of Women's Studies. In fact, this has already begun, and in the Spring 2006 semester, for the first time a new course: Gender, Space and Place is being taught. The new course, developed and executed by Dr David Lewis, has about 30 students enrolled in its first term – (roughly one-quarter of the enrollments are in WSS, one-quarter in GOG, and half in PLN, with a handful of other majors; exactly half the students are women) – and in addition to its specific learning objectives, we are expecting its very presence to act in a positive way to enhance the oncampus visibility of the USP major. In an informal poll of the Women's Studies students in the course, it is apparent that many of them were not previously aware of the USP major!

Double majors and minors of recent graduates in Geography and USP

At Albany a minor is mandatory in addition to a major, except in certain disciplines which offer a combined major-minor degree. The department's two disciplines may each be taken as a major or minor, or the disciplines may both be taken as a double major. For students listing a double major, a minor is optional. Students in all degrees may list multiple minors. (See *Undergraduate Bulletin* for details.) The order in which double majors are listed on the transcript is somewhat arbitrary, so in this report students with a double GOG/USP major are treated symmetrically. Thus these students are double counted in the tabulations below.

Second Majors listed by Students with a Geography Major (n= 101)

Urban Studies and Planning 15 (15%)

Interdisciplinary 1

No second major 85 (85%)

Second Majors listed by Students with an Urban Studies and Planning Major (n=85)

Geography 15 (18%)
Anthropology 1
Communication 1
English 1
History 1
Sociology 1
No second major 65 (76%)

Minors listed by Students with a Geography Major.

(A few students declare 2 minors, double majors declare no minor, number of minors tabulated = 90)

| Minor | Number of Students |
|-----------------------|--------------------|
| Urban Studies and Pla | anning 26 (29%) |
| Business | 11 (12%) |
| Sociology | 8 |
| Anthropology | 6 |
| History | 5 |
| Psychology | 5 |
| Computer Science | 4 |
| Biology | 2 |
| Economics | 2 |
| Political Sciences | 2 |
| Spanish | 2 |
| One Student Each: | |
| Africana Studies | |
| Art | |

Art Chinese

Computing in the Social Sciences

English

General Education Studies

German

Greek and Roman Civilization

Journalism

Mathematics

Music

Philosophy

Religious Studies

Statistics Theater Urban Education Women's Studies

Minors listed by Students with an Urban Studies and Planning Major.

(A few students declare 2 minors, double majors declare no minor, number of minors tabulated = 73)

| Minor | Number of Students |
|-----------------|--------------------|
| Geography | 15 (21%) |
| Business | 10 (14%) |
| Sociology | 8 |
| History | 7 |
| Psychology | 7 |
| Political Scien | ice 5 |
| Art | 3 |
| Economics | 3 |
| Urban Educati | ion 3 |
| English | 2 |
| Spanish | 2 |

One Student Each:

Anthropology

Geology

Greek and Roman Civilization

Latin American and Caribbean Studies

Mathematics

Physics

Religious Studies

Theater

| I-1 C+! I DI | | | | | | | | | | + |
|--|----------------------|---------------------------|--|---------|----------------------------|---------------------------------|------------------------------|---------------------------|--------------------------|------|
| Jrban Studies and Plar | ning Major | | | | | | | | | |
| | | 1 0 11: | Current | lo 11: | | 0 0 1 | | Requirements and Course C | | 10 |
| Required Core Course | | Cross List | | Credits | Required Courses | Course Code | | Course Title | Course Description | Cred |
| | AGOG 125 | | The American City | 3 | Total of 12 credits | | AUSP 101 | No Change | No Change | N.C |
| | AGOG 225(Z) | AGLO 225(Z) | World Cities: Geographies of Globalization | 3 | | | AUSP 203(Z) | No Change | No Change | N.C |
| | APLN220 | | Introductory Urban Planning | 3 | | AUSP 201 | ATTOR COS | No Change | No Change | N.O |
| Required Course Option | | | | 3 | Methods Requirement | AGOG 220 | AUSP 202 | No Change | No Change | N. |
| required Course Opuc Any three totaling | AGOG 220 | | Introduction to Urban Geography | 3 | Must take 3 credits | | | | | |
| credits | AGOG 220 AGOG 321 | AEAC/ALCC 221 | Exploring the Multicultural City | 3 | or 1 course | ACOC 221 | AEAS/ALCS 321 | No Change | No Change | N. |
| credits | AGOG 321 AGOG 324 | AEAS/ALCS 321 | City on Computer | 3 | of 1 course | AGOG 321 | ALAS/ALCS 321 | No Change | No Change | N. |
| | | ACOC/AMICC 220 | | 3 | | | ACOC/AMICC 220 | | | N. |
| | APLN328 APLN 330 | AGOG/AWSS 328 AGOG 330 | Gender, Space and Place Principles of Environmental Management | 3 | | AUSP 328 . | AGOG/AWSS 328 AGOG 330 | No Change No Change | No Change No Change | N. |
| | | AGOG 550 | | 3 | | AUSP 330 | | | | |
| | AGOG 480 | | Advanced Urban Geography | | | ALION DAEG | AUSP480 | No Change | No Change | N. |
| | APLN 315Z | | State and Regional Planning | 3 | | AUSP 315Z | | No Change | No Change | N. |
| | APLN 320 | | International Planning | 3 | | AUSP 320 | | No Change | No Change | N. |
| | | | | | | AUSP 375* | AGOG 375* | Methods of Urban Analysis | see course creation form | 3 |
| pper Level Electives | | | | | Upper Level Electives | | | | | |
| Tust take 12 Credits | APLN 420Y | | Introduction to Real Estate Development | 3 | Must take 12 Credits | AUSP 420Y | | No Change | No Change | N |
| | APLN 425 | | Community Development and Neighborhood | | | AUSP 425 | | No Change | No Change | N |
| | APLN 426 | | Community Development and Neighborhood | | | AUSP 426 | | No Change | No Change | N |
| | APLN 430(Z) | AGOG 430 | Environmental Planning | 3 | | AUSP 430(Z) | AGOG 430 | No Change | No Change | N |
| | APLN 432 | | Parks, Recreation, and Heritage Planning | 3 | | AUSP 432 | | No Change | No Change | N. |
| | APLN 436 | | Landscape Planning | 3 | | AUSP 436 | | No Change | No Change | N. |
| | APLN 443 | | Transportation History and Planning | 3 | | AUSP 443 | | No Change | No Change | N. |
| | APLN 449 | | Bicycle and Pedestrian Transportation Plannin | 1 3 | | AUSP 449 | | No Change | No Change | N. |
| | APLN 451 | | Introduction to Computer-Aided Design | 1 | | AUSP 451 | | No Change | No Change | N. |
| | APLN 452 | (formerly A PLN 450 |) CADD in Planning | 3 | | AUSP 452 | | No Change | No Change | N. |
| | APLN 456 | AGOG 496 | Geographic Information Systems | 3 | | AUSP 456 | AGOG 496 | No Change | No Change | N. |
| | | | | | | AUSP460 | AGOG 460 | People, Place and Power | see course creation form | . 3 |
| | APLN 475 | | Urban Design | 3 | | AUSP 475 | | No Change | No Change | N. |
| | APLN 476 | | Urban Design Workshop | 1 to 3 | | AUSP 476 | | No Change | No Change | N. |
| | APLN 485 | | Topics in Planning | 1 to 4 | | AUSP 485 | | No Change | No Change | N. |
| | APLN 497 | | Independent Study in Planning | 2 to 4 | | AUSP 497 | | No Change | No Change | N. |
| ormally part of | | | | | Community Engagement Re | quirement | | | | |
| 2 credit upper | APLN 437 | | Landscape Planning Workshop | | Must take 3 credits | USP 437 | | No Change | No Change | N. |
| ivision requirement | APLN 474 | | Site Design | | | USP 474 | | No Change | No Change | N. |
| livision requirement | APLN 476 | | Urban Design Workshop | | | USP 476 | | No Change | No Change | N. |
| | APLN 490 | | Internship in Planning | | | USP 490 | | No Change | No Change | N |
| | APLN 497 | | Independent Study in Planning | | | USP 497 | | No Change | No Change | N. |
| ognate Discipline Re | quirement | | | | Cognate Discipline Require | nent | | | | |
| Credits | | | | | 6 Credits | | | | | |
| Currently there requirements is to take two specified courses with a single cognate discipline. For example, a student may take XXX and XXX. However, this has resulted in numerous DARS exceptions since many of the specified courses are no longer taught or taught too | | ipline. | | | | s in any of the cognate discipl | | | | |
| | | | | | w | Education; 4) Political Science | | | | |
| | | | | | | tion and Policy; 8) Women's S | Studies; 9) Latin American a | ind | | |
| | | sure timely graduation. | concer courses are no longer adapte of taught to | _ | | Caribbean Stud | lies, and 10) selected | d course in Humanities. | | |
| | amequently to cr | Date afficing graduation. | | | | | | | 1 | |

Undergraduate Bulletin

Degree Requirements for a BA in Urban Studies and Planning

The Urban Studies and Planning Major is designed for students interested in a liberal arts education focusing on urban and suburban environments; environmental planning; sustainable development policy and practices; as well as urban, community and neighborhood development. The program of study mixes conventional classes with fieldwork and computer-based learning, and it requires considerable awareness of international, multicultural and policy issues. Students with training in Urban Studies and Planning may enter careers in housing and community development, real estate, local and state government, local economic development, or local planning. They can pursue further study in graduate or professional schools to specialize in city and regional planning, public policy, real estate, architecture, or landscape architecture.

General Program B.A.: A minimum of 36 credits including:

- Five core courses (15 Credits) as follows: USP 101 (=GOG 125), USP 203 (=GOG 225, GLO225), USP 201 (=PLN 220), USP 202 (=GOG 220); plus one methods course chosen from the following list, or as advised: USP 385, GOG 390, GOG 414, GOG 479, USP 456 (= GOG 496), USP 324 (=GOG 324), USP 452, GOG 480, GOG 484, GOG 485, GOG 498.
- 12 credits of elective courses chosen from the following: USP 266 (=GOG 266 = GLO 266), USP 315, USP 321 (=GOG 321), USP 320, USP 330, USP 328 (=GOG 328 =WSS 328), USP 425, USP 426, USP 430, USP 436, USP 443, USP 449, USP 451, USP 452, USP 460, USP 475, USP 480 (=GOG 480), USP 485, USP 497
- 3 Credits of community engagement work chosen from the following: USP 437, USP 474, USP 476, USP 490, USP 497.
- 6 credits of cognate coursework: as advised, chosen from upper-division urban-related coursework in departments outside G&P including but not limited to: Anthropology, Economics, Education, History, Political Science, Public Administration and Policy, Sociology, Latin American and Caribbean Studies, Women's Studies, Environmental Science, and selected courses in the Humanities (including English and Art).

| University at Albany – State University of New York | | | | |
|---|---|--|--|--|
| College of Arts and Sciences Course and Program Action Proposal No. 11-070A | | | | |
| Please check one: X Course Proposal Program | Proposal | | | |
| Please mark all that apply: | | | | |
| X New Course Re | evision of: Number Description | | | |
| X Cross-Listing w/GOG 375 | Title Prerequisites | | | |
| Shared-Resources Course | Credits | | | |
| Deactivate/Activate Course (boldface & underline as | Other (specify): | | | |
| Department: Geography and Planning E | ffective Semester, Year: Fall 2012 | | | |
| Course Number Current: New: | USP 375 Credits: 3 | | | |
| Course Title: Methods of Urban Analysis | | | | |
| Course Description to appear in Bulletin: Course overview and objectives: This class will build a formula to the course overview and objectives: | | | | |
| planning methodology. Students will develop fundamental analysis, and data interpretation. When the course success of data, accurate present data in table and graphic format, measures of central tendency and dispersion, conduct hypotools to analyze places. | sfully completed, students will be to identify different types describe and analysis data using statistic tools such as | | | |
| Prerequisites statement to be appended to description in B | ullatin: | | | |
| MAT108 Elementary Statistics or equivalent | | | | |
| If S/U is to be designated as the only grading system in the | course, check | | | |
| This course is (will be) cross listed with (i.e., CAS ###): | GOG 375 | | | |
| This course is (will be) a shared-resources course with (i.e. | , CAS ###): | | | |
| Explanation of proposal: | | | | |
| As part of formalizing the Urban Studies and planning undergraduate major, this class will be part of the requirement for the methodological component of the degree. It will focus on data sources, uses of data, data presentation, elementary statistics and population modeling | | | | |
| Other departments or schools which offer similar or related not overlap their offering: | courses and which have certified that this proposal does | | | |
| | | | | |
| Chair of Proposing Department | Date | | | |
| Christopher J. Smith | | | | |
| Approved by Chair(s) of Departments having cross-listed | | | | |
| course(s) [Copy of e-mail approval on following page.] Date Christopher J. Smith | Dean of College Date Gregory Stevens | | | |
| | 11/22/11 | | | |
| Chair of Academic Programs Committee Date Pinka Chatterji | Dean of Undergraduate or Graduate Studies Date | | | |
| 11/10/11 | | | | |

| University at Albany – State University of New York | | | |
|--|--|--|--|
| College of Arts and Sciences Course and Program Action Proposal No. 11-070B | | | |
| Please check one: X Course Proposal Program | Proposal | | |
| Please mark all that apply: | | | |
| X New Course Rev | vision of: Number Description | | |
| X Cross-Listing w/USP 375 | Title Prerequisites | | |
| Shared-Resources Course | Credits | | |
| Deactivate/Activate Course (boldface & underline as | Other (specify): | | |
| Department: Geography and Planning Ef | fective Semester, Year: Fall 2012 | | |
| Course Number Current: New: _ | GOG 375 Credits: 3 | | |
| Course Title: Methods of Urban Analysis | | | |
| Course Description to appear in Bulletin: | | | |
| Course overview and objectives: This class will build a for planning methodology. Students will develop fundamental stanalysis, and data interpretation. When the course success of data, accurate present data in table and graphic format, difference of central tendency and dispersion, conduct hypotools to analyze places. | kills, such as data collection and presentation, descriptive fully completed, students will be to identify different types escribe and analysis data using statistic tools such as | | |
| Prerequisites statement to be appended to description in Bu | lletin: | | |
| MAT108 Elementary Statistics or equivalent | | | |
| If S/U is to be designated as the only grading system in the | course, check | | |
| This course is (will be) cross listed with (i.e., CAS ###): | USP 375 | | |
| This course is (will be) a shared-resources course with (i.e., | | | |
| Explanation of proposal: | | | |
| As part of formalizing the Urban Studies and planning under the methodological component of the degree. It will focus or statistics and population modeling | | | |
| Other departments or schools which offer similar or related of | courses and which have certified that this proposal does | | |
| not overlap their offering: | | | |
| Chair of Proposing Department Christopher J. Smith | Date | | |
| | 9.9.11 | | |
| Approved by Chair(s) of Departments having cross-listed course(s) [Copy of e-mail approval on following page.] | Dean of College Date | | |
| Christopher J. Smith | Gregory Stevens | | |
| Chair of Academic Programs Committee Date | 11/22/11 Dean of Undergraduate or Graduate Studies Date | | |
| Pinka Chatterji 11/10/11 | - Date | | |
| 11/10/11 | | | |

Syllabus

Methods of Urban Analysis Course number USP 375/ GOG 375 M W 2:45-4:05 Fall 2007 AS Room 121 Instructor: David A. Lewis Phone (518) 442-4595 Fax (518) 442-4742 Email: dalewis@albany.edu

Office hours: M, W 9:00-11:00

Or by appointment

Course overview and objectives: Essentially, this class will build a foundation for the lager field of statistical analysis and planning methodologies. Students will develop fundamental skills, such as data collection and presentation, descriptive analysis, and data interpretation. When the course successfully completed, students will be to identify different types of data, accurate present data in table and graphic format, describe and analysis data using statistic tools such as measures of central tendency and dispersion, conduct hypothesis testing, build confidence intervals and use these tools to analyze places.

Grading Policy: No late work will be accepted and class attendance is mandatory. All violations of the academic integrity policy at the minimum will result in a failure for the assignment.

| Midterm | 30% |
|----------------------|-----|
| Class participation | 5% |
| Quizzes | 20% |
| Homework assignments | 15% |
| Final exam | 30% |

There are required reading for each class. In addition, each week there will be a homework assignment due the following class session. There will be two exams and 10 unannounced quizzes.

Required Texts: (available at Mary Jane's Books)

Ott and Mendall. 1994. *Understanding Statistics*, Sixth edition. Belmont California: Duxbury Press. (or comparable introduction to statistics text book)

Klosterman, Richard. 1990. *Community Analysis and Planning Techniques*. Lanham, MD: Rowman and Littlefiled Publishers.

Other readings will be handed out in class or available online at: http://eres.ulib.albany.edu/coursepage. The case sensitive password is pln430.

Schedule:

August 27: Introduction: Data Collection and presentation and class overview.

Due next class read in Mott and Mendall, chapters 1 and 2 (skip sections 2.3 and 2.4).

Read Chapter1 in Cuzzort and Vrettos. 1996. *The Elementary Forms of Statistical Reason*. NY: St. Martins Press. (e-reserve)

Homework due next class, problems 1.1, 1.2, 1.3, 1.4. All in Mott and Mendall

Using Census Data City Description Project Due September 19th. See hand out for details.

August 29: Data Collection and presentation

Due next class read in Mott and Mendall chapter 3 up to page 67. Homework due next class problems 3.1, 3.2, 3.3, 3.4, 3.9, 3.14, and 3.17. All in Mott and Mendall

September 5: Numerical Description of data; measures of central tendency and dispersion

Due next class read in Mott and Mendall chapter 3 pages 67-70 and chapter 4 pages 90-97. Homework due next class problems 3.18, 3.19, 3.20, 3.23, 4.1, 4,2. All in Mott and Mendall

September 10: Numerical Description of data; measures of central tendency and dispersion

Due next class read Tufte, Edward. 1983. The Visual Display of Quantitative Information. Chesire, CN: Graphics Press. Pages 13-53. (e-reserve)

September 17: Students present city data, review homework assignments and quizzes, open question and answer session

Due next class read in Mott and Mendall chapter 5 pages. Homework due next class problems 5.3, 5.4, 5.5, 5.14, 5.16, 5.24. All in Mott and Mendall

September 19: Probability and relationships

Due next class read in Mott and Mendall chapter 5 focus on pages 175-188.. Homework due next class problems. 5.24, 5.30, 5.32, 5.36, 5.40, 5.42, 5.56 All in Mott and Mendall

September 24: Probability laws and binomial experiments

Due next class read in Mott and Mendall chapter 6 pages 198-218. Homework due next class problems 6.4, 6.6, 6.9, 6.11, 6.13. All in Mott and Mendall

September 26: Probability laws and binomial experiments

Due next class read in Mott and Mendall chapter 6 pages 198-218. Homework due next class problems 6.15, 6.6.16, 6.19, 6.24, 6.30, 6.32, 6.26, 6.40. All in Mott and Mendall

October 1: Estimation and confidence intervals

Due next class read in Mott and Mendall chapter 7 (omit sections 7.4 and 7.6). Homework due next class problems 7.4, 7.6, 7.8. All in Mott and Mendall

OCTOBER 3: MIDTERM EXAM (covers every thing up to and including probability and binomials)

October 8: Review Midterm and Introduction to hypothesis testing

Due next class read in Mott and Mendall chapter 8 (omit sections 8.3, 8.5, 8.6 and in section 8.2 pages 301-303).

Homework due next class problems 8.3, 8.5, 8.6, 8.7. All in Mott and Mendall

October 10: Introduction to hypothesis testing

Due next class read in Mott and Mendall chapter 10 sections 10.3, 10.7, 10.8 Homework due next class problems 7.3, 7.5, 7.8, 7.10, 7.11, 7.12, 7.29, 7.32, 8.2, 8.4, 8.10, 8.28, 8.30 All in Mott and Mendall

October 15: Hypothesis testing continued Review Homework assignments and quizzes from 9/19 to 10/10

Due next class read in Mott and Mendall chapter 11 pages 445-474. Homework due next class problems 10.3, 10.6, 10.8, 10.11, 10.30, 10.48, 10.50, 10.56 All in Mott and Mendall

October 17: Chi-square analysis

Due next class read in Mott and Mendall chapter 12 sections pages 505-518. Homework due next class problems 111.34, 11.32, 11.44, 11.50 All in Mott and Mendall

October 22: Correlation and analysis of variance ANOVA.

Due next class read in Mott and Mendall chapter 12 sections pages 505-518. Homework due next class problems 11.34, 11.32, 11.44, 11.50 All in Mott and Mendall

October 24: Least square regression analysis

Due next class read in Klosterman chapters 1 and 2 Homework due next class see handout

October 29: Population forecasting using extrapolation techniques

Due next class read in Klosterman chapter 3 Homework due next class see handout

October 31: Population forecasting using extrapolation techniques

Due next class read in Klosterman chapter 4 Homework due next class see handout

November 7: Time-Cohort Component Technique

Due next class read in Klosterman chapter 9 Homework due next class see handout

November 12: Location Quotients

Due next class read in Klosterman chapter 10 Homework due next class see handout

November 14: Economic Base Analysis

Due next class read in Klosterman chapter 11 Homework due next class see handout

November 19: Review Homework assignments, quizzes from 10/15 to 11/19

November 26: More Economic Base Analysis

Homework due next class see handout

November 28: Critiques of Economic Base

December 3: More Data Sources Explored

December 5: Review

Final Exam: To Be Announced

| University at Albany – State University of New York | | | |
|--|--|--|--|
| College of Arts and Sciences Course and P | Proposal No. 11-070C | | |
| Please check one: X Course Proposal Program | Proposal | | |
| Please mark all that apply: | | | |
| X New Course Rev | vision of: Number Description | | |
| X Cross-Listing w/GOG 460 | Title Prerequisites | | |
| Shared-Resources Course | Credits | | |
| Deactivate/Activate Course (boldface & underline as | Other (specify): | | |
| Department: Geography and Planning Eff | fective Semester, Year: Fall 2012 | | |
| Course Number Current: New: | USP 460 Credits: 3 | | |
| Course Title: People, Place and Power | | | |
| Course Description to appear in Bulletin: | | | |
| Course overview and objectives: Course Description: This course will examine the relationships between current e more environmentally sustainable. It begins with defining en political, and technological factors that determine the potenti Course objectives include: At the end of this course, student planning and policy choices; 2) describe major conflicts in endifferences between | ergy then turns to an analysis of the economic, social, al a carbon free energy future. Its will be able to 1) identify how normative bias influences | | |
| Prerequisites statement to be appended to description in Bul | lletin: | | |
| If S/U is to be designated as the only grading system in the o | course, check | | |
| | | | |
| This course is (<u>will be</u>) cross listed with (i.e., CAS ###): This course is (will be) a shared-resources course with (i.e., | GOG 460 | | |
| This course is (will be) a shared-resources course with (i.e., | | | |
| Explanation of proposal: As part of formalizing the Urban Studies and Planning under the upper division component of the degree. It will expand the sustainability issues. | ne opportunities for students interest in environmental and | | |
| Other departments or schools which offer similar or related on not overlap their offering: | ourses and which have certified that this proposal does | | |
| The country with the co | | | |
| Chair of Proposing Department Christopher J. Smith | Date | | |
| | 9.9.11 | | |
| Approved by Chair(s) of Departments having cross-listed course(s) [Copy of e-mail approval on following page.] Date | Dean of College Date | | |
| Christopher J. Smith | Gregory Stevens | | |
| Chair of Academic Programs Committee Date | 11/22/11 Dean of Undergraduate or Graduate Studies Date | | |
| Pinka Chatterji | Dean of Undergraduate or Graduate Studies Date | | |
| 11/10/11 | | | |

| University at Albany – State University of New York | | | |
|--|---|--|--|
| College of Arts and Sciences Course and Program Action Proposal No. 11-070D | | | |
| Please check one: X Course Proposal Program | Proposal | | |
| Please mark all that apply: | | | |
| X New Course Rev | vision of: Number Description | | |
| X Cross-Listing w/USP 460 | Title Prerequisites | | |
| Shared-Resources Course | Credits | | |
| Deactivate/Activate Course (boldface & underline as | Other (specify): | | |
| Department: Geography and Planning Ef | fective Semester, Year: Fall 2012 | | |
| Course Number Current: New: | GOG 460 Credits: 3 | | |
| Course Title: People, Place and Power | | | |
| Course Description to appear in Bulletin: | | | |
| Course overview and objectives: Course Description: | | | |
| This course will examine the relationships between current of more environmentally sustainable. It begins with defining er political, and technological factors that determine the potential | nergy then turns to an analysis of the economic, social, | | |
| Course objectives include: At the end of this course, studen planning and policy choices; 2) describe major conflicts in eldifferences between | ts will be able to 1) identify how normative bias influences nergy planning and policy; and 3) understand the | | |
| Prerequisites statement to be appended to description in Bu | lletin: | | |
| | | | |
| If S/U is to be designated as the only grading system in the | course, check | | |
| This course is (will be) cross listed with (i.e., CAS ###): | USP 460 | | |
| This course is (will be) a shared-resources course with (i.e., | CAS ###): | | |
| Explanation of proposal: | | | |
| As part of formalizing the Urban Studies and Planning under the upper division component of the degree. It will expand t sustainability issues. | | | |
| | | | |
| | | | |
| Other departments or schools which offer similar or related on not overlap their offering: | courses and which have certified that this proposal does | | |
| | | | |
| Chair of Proposing Department | Date | | |
| Christopher J. Smith | | | |
| Approved by Chair(s) of Departments having cross-listed | 9.9.11 | | |
| course(s) [Copy of e-mail approval on following page.] Date Christopher J. Smith | Dean of College Date Gregory Stevens | | |
| | 11/22/11 | | |
| Chair of Academic Programs Committee Date | Dean of Undergraduate or Graduate Studies Date | | |
| Pinka Chatterji 11/10/11 | | | |
| L | 1 | | |

Syllabus

People, Place, and Power Course number USP 460/ GOG 460 M &W 2:45-4:05 Fall 2011

Fall 2011 AS Room 121 Instructor: David A. Lewis Phone (518) 442-4595 Fax (518) 442-4742

Email: dalewis@albany.edu
Office hours: M & W 9:00-11:00

Or by appointment

Grading Policy: No late work will be accepted and class attendance is mandatory. All violations of the academic integrity policy at the minimum will result in a failure for the assignment.

| Newspaper article reviews | 20% |
|---------------------------|-----|
| Class participation | 10% |
| Quizzes | 25% |
| Final exam | 25% |
| Advocacy Letter | 20% |

There are required reading for each class. In addition, each week you will review a recent major newspaper article that addresses an environmental planning issue. This journal will be reviewed in the middle of the term and during the last week of the term. In addition, there will be 10 unannounced quizzes throughout the semester based on the readings for the class.

Course Description: This course will examine the relationships between current energy supplies and alternatives that are renewable and more environmentally sustainable. It begin with defining energy then turns to an analysis of the economic, social, political, and technological factors that determine the potential a carbon free energy future.

Course objectives include: At the end of this course, students will be able to 1) identify how normative bias influences planning and policy choices; 2) describe major conflicts in energy planning and policy; and 3) understand the differences between physical/technological barriers versus economic/political impediments to sustainable energy planning/policy options.

Required Texts: (available at Mary Jane's Books)
Gilding, Paul. 2011. *The Great Disruption: Why Climate Change Will Bring On the End of Shopping and the Birth of a New World*. New York: Bloomsbury Press.

Other readings will be handed out in class or available online at the University at Albany's Library E-Reserve website. The case sensitive password is pln485.

Schedule:

August 39: Introduction

August 31: What changes peoples environmental actions?

Ridley, Matt and Low, Bobbi. 1996. Can Selfishness Save the Environment? in Readings in Planning Theory edited by Campbell and Fainstein. New York: Blackwell.

SEPTEMBER 5: NO CLASS

September 7: Energy Policy in the US

Readings:

GAO. 2005. U.S. National Energy Policy: Inventory of Major Federal Energy Programs and Status of Policy Recommendations. Washington, DC. U.S. Government Accountability Office. Pages 1-63.

Laird, Frank. 2009. A Full-Court Press for Renewable Energy. *Issues in Science and Technology*. 25(2): 53-56.

Jennings, Philip. 2009. New Direction in Renewable Energy Education. *Renewable Energy: An International Journal*. 34(2): 435-439.

September 12: Current Energy Consumption and Fuel Sources List of Elected Official and Contact Information Due

DOE. 2009. Annual Energy Review, 2009. Washington, DC. U.S. Department of Energy. Review tables in sections 1, 2, 4, and 10.

Sovacool, Benjamin. 2007. Coal and Nuclear: Creating a False Dichotomy for American Energy Policy. *Policy Sciences*. 40(2): 101-122.

September 14: Available Renewable Energy Resources

National Academy of Science. 2010. Electricity from Renewable Resources: Status, Prospects, and Impediments. Washington, DC: National Academies Press. Pages 1-63.

September 19: Impacts of Current Energy Supplies and Consumption

Dincer, Ibrahim . 2001. Environmental Issues: I-Energy Utilization. Energy Sources. 23(1)

Dincer, Ibrahim. 1998. Energy and Environmental Impacts: Present and Future Perspectives. *Energy Sources*. 20: 427-453,

September 21: Energy, the Environment and the Economy Elected Official Review Due

Readings

Bezdak, Roger. 1995. The Net Impact of Environmental Protection on Jobs and the Economy. In Environmental Justice: Issues, Policies and Solutions. Edited by Bryant, B. Washington, DC: Island Press.

More readings next page

Meyer, Stephen. 1995. The Economic Impact of Environmental Regulation. *Journal of Environmental Law and Practice*. 3(2): 4-16.

September 26: Policy not Politics

Readings:

Norberg-Bohm, Vicki. 2000. Creating Incentives for Environmentally Enhancing Technological Change: Lesson from 30 Years of U.S. Energy Policy. Technological Forecasting and Social Change. 65: 125-148.

Jacobsson, Staffan and Johnson, Anna. 2000. The Diffusion of Renewable Energy Technology: An Analytical Framework and Key Issues for Research. Energy Policy. 28: 625-640.

September 28: NO CLASS

October 3: Wind Power
Topic of the Advocacy Letter Due

Readings:

Bolinger, Mark. 2004. Making European-style community wind power development work in the US. *Renewable and Sustainable Energy Reviews*. 9(6): 556-575.

Wickersham, Jay. 2004. Sacred Landscapes ad Profane Structures: How the Offshore Wind Power Challenges the Environmental Impact Review process. *Environmental Affairs*. 31(325): 325-347.

October 5: Wind Power

Readings:

Lewis, Joanna and Wiser, Ryan. 2007. Fostering a Renewable Energy Technology industry: An International Comparison of Wind Industry Policy Support Mechanisms. Energy Policy. 35: 1844-1857.

Leithead, W.E. 2007. Wind Energy. *Philosophical Transactions of the Royal Society*. 365: 957-970.

October 10: Wind Power

Journal Dues for Review: Six weekly entries should be completed.

Readings:

Peel, Deborah and Lloyd, Gregory. 2007. Positive Planning for Wind-Turbines in an Urban Context. *Local Environment*. 12(4): 343-354.

Katherine Richardson, Dorthe Dahl-Jensen, Jørgen Elmeskov, Cathrine Hagem, Jørgen Henningsen, John Korstgård, Niels Buus Kristensen, Poul Erik Morthorst, Jørgen E. Olesen, Mette Wier, Marianne Nielsen, Kenneth Karlsson. 2011. Denmark's Road for Fossile Fuel Independence. Solutions for a Sustainable and Desirable Future. 2(4): http://www.thesolutionsjournal.com/node/954

October 12: ACSP NO CLASS

October 17: Hydrofracturing

Film: Gasland Readings: To be announced

October 19: Draft Supplemental Generic Environmental Impact Statement (SGEIS)

Readings:

NYSDEC. 2011. Preliminary Revised Draft SGEIS on the Oil, Gas and Solution Mining Regulatory Program. Albany, NY: NYS Department of Environmental Conservation. (July 2011). Pages to be announced.

October 24: Renewable Options in NYS

Readings:

Van Haaren, Rob and Fthenakism Vasikis. 2011. GIS Based Wind Farm Site Selection using multi-criteria analysis (SMCA): Evaluating the case of New York. *Renewable and Sustainable Energy Review*. 15: 3332-3340.

Hevesi, Alan. 2005. *Energizing the Future. The Benefits of Renewable Energy for New York State*. Albany, NK: New York State Comptroller's Office.

October 26: Conservation

Readings:

National Academy of Science. *American's Energy Future: Technology and Transformation; Summary Edition.* Washington, DC: National Academies Press. Pages 9 through 49 and pages 82 through 94.

ASSINGMENT:

What is the most effective per dollar way to improve energy efficiency in a residential household? What is your carbon footprint?

October 31: Local Level Actions Draft of Advocacy Letter Due

Readings:

Parker, Paul and Rowlands, Ian. 2007. City Planners Maintain Climate Change Despite National Cuts: Residential Energy Efficiency Programme Valued at Local Level. *Local Environment*. 12(5): 505-517.

Condon, Patrick; Cavens, Duncan; and Miller, Nicole. 2009. *Urban Planning Tools for Climate Change Mitigation*. Cambridge, MA: Lincoln Institute of Land Policy.

November 2: Why Equality Matters

Readings

Moyers, Bill. 2003. The Progressive Story of America. Washington, DC.

MacEwan, Arthur and Miller, John. 2011. *Economic Collapse, Economic Change: Getting to the Roots of the Crisis*. London: M.E. Sharpe. Pages 33-52.

Also, review www.Equalitytrust.org

Look at the graphs regarding the effect of inequality on social outcomes

November 7: But There is No Money

Readings:

Ludder, Sunshine and Parrott, James. 2010. *New York has the Ways and Means: How and Why Wall Street Should Give Back to Main Street*. New York: Fiscal Policy Institute.

Greenhouse, Steven. 2011. The Wageless, Profitable Recovery. *New York Times*. August 3, 2011. Accessed on 8/3/11 at http://economix.blogs.nytimes.com/2011/06/30/the-wageless-profitable-recovery/

Krugman, Paul. 2011. Corporate Cash Con. *New York Times*, online July 3, 2011. at http://www.nytimes.com/2011/07/04/opinion/04krugman.html

November 9: Taxes, Investment, and Other Factors

Readings:

Simon, Christopher. 2009. Cultural Constraints on Wind and Solar Energy in the U.S. Context. *Comparative Technology Transfer and Society*. 7(3): 251-269.

Delbeke, J.; Klaassen, G.; van Ireland, T.; Zapfel, P. 2010. The Role of Environmental Economics in Recent Policy Making at the European Commission. *Review of Environmental Economics and Policy*. 4(1): 24-43.

ASSINGMENT:

Who developed and built the internet?
Who financed the development of computers?
Who developed GPS?
Where does Google Earth get most of its geographical shape files from?

November 14: Global Supplies and Other Issues Film: Crude Awakening: The Oil Crash

Readings:

Chow, Jeffrey; Kopp, Raymond; and Portney, Paul. 2003. Energy Resources and Global Development. *Science*. 302(5650): 1528-1531.

Ferguson, Andrew. 2001. Population and the Demise of Cheap Energy. *Politics and the Life Sciences*. 20(2): 217-226.

November 16: What Lies Ahead, I

Readings:

Gilding, Paul. 2011. *The Great Disruption: Why Climate Change Will Bring On the End of Shopping and the Birth of a New World.* New York: Bloomsbury Press. Chapters 2 & 3.

November 21: What Lies Ahead, II Final Draft of Advocacy Letter Due

Readings:

Gilding, Paul. 2011. *The Great Disruption: Why Climate Change Will Bring On the End of Shopping and the Birth of a New World*. New York: Bloomsbury Press. Chapters 4&5.

NOVEMBER 23: NO CLASS November 28: What Lies Ahead, III

Readings:

Gilding, Paul. 2011. *The Great Disruption: Why Climate Change Will Bring On the End of Shopping and the Birth of a New World*. New York: Bloomsbury Press. Chapters 11 &12.

November 30: Alternatives

Readings:

Ivner,, Jenny. 2009. Energy Planning with Decision-Making Tools: Experience from an Energy-Planning Project. *Local Environment*. 14(9): 833-850.

Owen, Steve and Boyer, Jeff. 2006. Energy, Environment, and Sustainable Industry in the Appalachian Mountains, United State. *Mountain Research and Development*. 20(2): 115-118.

Heiman, Michael and Solomon, Barry. 2004. Power to the People: Electric Utility Restructuring and the Commitment to Renewable Energy. *Annals of the Association of American Geographers*. 94(1); 94-116.

December 5: Alternatives: ALL 12 JOURNALS ENTRIES are DUE

Readings:

Loiter, Jeffrey and Norberg-Bohm, Vicki. 1999. Technology policy and Renewable Energy: Public Roles in the Development of Renewable Energy. *Energy Policy*. 27: 85-97.

Sigfusson, Thorsteinn. 2007. Pathways to Hydrogen as an Energy Carrier. *Philosophical Transactions of the Royal Society*. 365: 1025-1042.

Amor, Mourad Ben; Lesagem Pascal; Pineau, Pierre-Oliver; and Samson, Rejean. 2010. Can distributed generation offer substantial benefits in a Northeastern American context? A case study of small-scale renewable technologies using a life cycle methodology. *Renewable & Sustainable Energy Reviews*. 14(9): 2885-2895.

December 7: Alternatives

Readings:

Gilbert, Lewis. 2010, Sustainability is More Than Green: A Framework for University Leadership. *Solutions Journal*. 1(6): 54-55.

Yung-Chi, Shen; Chou, Chiyang James; and Lin, Grace T.R. 2011. The Portfolio of Renewable Energy Sources for Achieving the Three E Policy Goals. *Energy*. 36(5): 2589-2598.

Final Exam: Monday Dec 12 3:30pm-5:30pm