PRATT PROGRAMS FOR SUSTAINABLE PLANNING AND DEVELOPMENT  
In cooperation with  
The Center for Social Inclusion  

Recovery, Adaptation, Mitigation and Planning [RAMP]  

“Resilience is the curriculum of the 21st Century.”  
Donald Watson, 2/14/2013  

We must address the challenges posed by climate change in away that also address the social, economic and environmental injustices that have plagued too many of our people and that have lead to policies that have destroyed neighborhoods and jeopardized the well being of us all.  
Ron Shiffman 3/6/2013  

OVERVIEW  
Hurricane Sandy, which hit the New York City area on October 29, 2012, directly affected a wide variety of diverse social, economic and physical communities along the New York / New Jersey / Connecticut region’s coastline. Many of the places affected are areas inhabited by low- and moderate-income families, including immigrant and non-immigrant, white, Latino and black residents, as well as small businesses. Community residents are part of the team of “first responders” in their neighborhoods and as such building their capacity to respond to disasters, as well as to plan and develop their communities in the face of future disasters must be the foundation of any resiliency strategy. This is particularly important in low- and moderate-income areas and in communities of color where issues of race and economic status have too often led to exclusion and isolation.  

It is essential to develop the capacity and delivery system to assist these diverse communities and businesses in their recovery from the impacts of Sandy and to strengthen their resilience to face future storms by enabling them to adapt to the inevitability of climate change. Equally important is the need to build their capacity to undertake the sustained mitigation actions necessary to reduce concentrations of greenhouse gases. The city and the country can no longer afford to engage in planning policies that are either predicated on risk denial or based on short term fixes -- climate change and rising sea levels and their impact on the pattern of development in the city must be addressed by a sustained, holistic and synergistic approach to recovery and post-recovery efforts. Lessons from a diverse, dense island city like New York will be instructive for municipalities elsewhere.  

In order to address these issues Pratt Institute’s Programs for Sustainable Planning and Development, which has had a fifty-year history of working with community-based organizations committed to social, economic and environmental justice, is proposing to work closely with the Center for Social Inclusion, the NYC-Environmental Justice Alliance and a number of other organizations and educational institutions committed to these values to develop a curriculum for a capacity building, technical assistance and policy development program that would address the interrelated issues of Recovery, Adaptation, Mitigation and Planning.
Program Description
In order to address these needs, Pratt Institute’s Programs for Sustainable Planning and Development (PSPD) has initiated the development of a suite of studios, classes, and workshops to begin in the summer of 2013, called the “Recovery, Adaptation, Mitigation and Planning [RAMP]” program. At its core, the RAMP studios will serve matriculated students of architecture, planning, preservation, and environmental management at Pratt, as well as students from other accredited planning and architectural programs interested in getting credit for participating in these classes. Because these emergent issues are of extreme importance to professionals in these fields, RAMP will also open courses and workshops to practitioners, in many cases for continuing maintenance credits.

Studios

• Repositioning in Place: Strategies for a Resilient Red Hook
(Undergraduate Architecture Studio)

  Faculty: Deborah Gans, Jeremy Carvalho (Pratt Faculty)
  Run time: M/W/F 2-6pm, May 13-August 2, Pratt Brooklyn Campus

  Course Description: The focus of this studio is rebuilding at the scale of the neighborhood. The premise is that the individual property benefits through its integration into this larger socio-economic and environmental order; and, conversely, that the city benefits from an intermediate scale that capitalizes on existing social and physical infrastructures. This scale has not been conceptually developed in urban thinking. It does not appear as a physical entity or area of concern in formal codes or public discussion. The studio will explore this intermediate scale of social behavior, urban thinking and design.

  The goal is to develop strategies for rebuilding that address historical problems simultaneously with the new ones, and, consequently, produce a more integrated and equitable environment. Our site is Red Hook, where industrial/commercial, small scale residential, and New York City Housing Authority properties were equally affected. The historic separations among these properties and users can be addressed through rebuilding strategies. Because Red Hook is typical of many New York neighborhoods - including Astoria and Williamsburg - we hope our results can in some regard be transferable to those sites as well.

  Our resources are the community in Red Hook and the work they have accomplished, as well as the other extensive course offerings this summer at Pratt as part of RAMP.

• UESM 739-01: Green Infrastructure Design & Build Studio

  Faculty: Elliott Maltby & Gita Nandan
  Run time: Thursday evenings 5 - 10:20 PM, May 16th - August 1st, Some Saturdays required, Pratt Brooklyn Campus

  Course Description: The primary focus of this course is to provide students with the opportunity to not only design but to understand the techniques of construction and implementation, gaining valuable experience and knowledge of the practical aspects of green infrastructure design. In light of the great impacts that Sandy had on New York City, we will be focusing the studio on one deeply impacted waterfront neighborhood, Red Hook. The studio will investigate how green infrastructure
integrated with urban design and the built environment can offer design-based solutions to a challenging but increasingly permanent condition of rising water levels, and storm water mitigation. The course will look at four conditions -- roof-scapes, parking lots, streetscapes and the waterfront edge -- and determine the best solutions for 15 year to 100-year flood impacts through a wide variety of green infrastructure techniques. These solutions will then be integrated to create a final neighborhood-wide green infrastructure plan. We will be bringing our findings back to the community, through presentations, gallery installations, and building a legacy component.

Learning Objectives:

- Demonstrate the ability to conduct a site analysis
- Demonstrate familiarity with a wide variety of green infrastructure methods, and their associated detailing; select appropriate methods for site conditions
- Conduct system calculations for plant selection and irrigation
- Draft maintenance and stewardship protocols as well as demonstrate a familiarity with stakeholder outreach methods
- Create well thought out designs and details that are specific to the assigned site, and its constraints.

- PLAN 850-01: Sustainable Business Studio
  Faculty: Jen Becker & Jaime Stein
  Run time: Thursday evenings 5 - 10:20 PM, May 16th - August 1st, Pratt Brooklyn Campus

Course Description: The Sustainable Business Studio course will introduce students to the concepts of Environmental Management Systems (EMS) and provide an opportunity for practical experience by working directly with a local New York City business to design an EMS based on the ISO 14001 Standard. In the initial weeks of the course, students will learn about the various approaches to EMS through lectures, guest presentations, and readings. During this time, students will gain a more thorough understanding of ISO 14001 in preparation for consultation with the studio client. The remaining two-thirds of the course will be dedicated to the design of an EMS (including a company environmental policy statement, assessed environmental impacts, permitting and compliance, and emergency preparedness) and will culminate with an action plan to be delivered to the client for implementation.

Students will have the opportunity to work directly with a client to gain a clearer understanding of the benefits and challenges of designing and implementing an EMS in a small business setting. This will require in-person client meetings and occasional visits to the place of business. In addition, the studio professors will invite guest presenters working in this field to provide further insight into their own experience and the various roles available in the profession today.

Learning Objectives:

- Define and explain an Environmental Management System (EMS), based on the ISO 14001 Standard
- Develop an Environmental Policy Statement
- Identify and prioritize the environmental Impacts associated with small to medium sized businesses
- Establish Environmental Objectives and Targets
- Create an EMS Action Plan
- Develop an Emergency Preparedness and Response Plan
- Identify resources for Action Plan implementation; and
- Identify and review associated environmental permits for compliance.

- PLAN 810-01: Community Planning Studio
  - **Faculty**: Ron Shiffman, Michael Haggerty
  - **Run Time**: Thursday evenings 5 - 10:20 P. M., May 16th to August 1st, Pratt Brooklyn Campus

  **Course Description**: This studio provides an opportunity for students to bring together an array of skills and knowledge to address a specific set of challenges based on a variety of social, economic, environmental and physical issues in New York City coastal neighborhoods subject to adverse impacts due to climate change. The studio begins with an introduction to issues of climate change and to the selected communities. The class, which combines classroom and field study, includes meetings with scientific experts, architectural and planning professionals, and community representatives. Students will work in multidisciplinary teams and work closely with the designated stakeholders and/or client[s], which could include private, government, or non-profit organizations. Class work will include the preparation of resource assessments; development analyses; preservation, comprehensive, or targeted neighborhood visions and plans; legal, regulatory, community development and political strategies; and written reports and graphics.

  The Community Planning studio will enable students to understand the impact of climate change on the region’s water bodies, taking into consideration the concomitant sea level rise in those waters and the geology of the region. Working with a selected set of diverse communities bordering the coastal areas of the Great Bay of New York and the community-based organizations, emerging leadership and advocacy groups indigenous to those areas, students will develop strategies to aid those communities to rebuild with a long term perspective and focus on adaptation and mitigation of the adverse impacts of climate change. (This studio will be coordinated with a comparable effort in Spring 2013 semester at the University of Pennsylvania, and other university-based studios that have agreed to cooperate with RAMP -- Clark University; University of Leuven, Belgium; University of Catalonia, Spain.)

  **Learning Objectives:**
  - Master applied planning and related research tasks: maps, vision and conceptual approaches, data and written text
  - Gain insight into the ramifications of climate change and sea level rise on coastal communities in the New York metropolitan region
  - Develop an understanding of the strategic stakeholder planning process through experience
Gain professional experience through work in teams and collaboration with community and regional stakeholders and other students in the studio, including other professionals.

Use participatory planning tools and techniques to solicit local knowledge and strengthen plans; contribute to plan advocacy by building consensus around plan priorities and identifying funding and other resources for plan implementation.

Use planning and urban design skills to develop the proposed plans to meet the needs of coastal communities and understand a variety of weather-related occurrences, as well as physical and topographical factors.

Develop an understanding of the interplay between land use/preservation planning, adaptation, mitigation and community health, community networks and social well-being.

Classes

- **PLAN 801A-02: Urban Alchemy: Social Integration and Human Health**
  - **Instructor:** Mindy Thompson Fullilove, MD (Columbia University and Pratt Faculty)
  - **Run time:** Wednesday 5pm-7:50pm, 5/13/13 – 6/21/13

  **Course Description:**
  Social psychiatry views communities along a continuum of “integration,” which refers to the linkages among people. Communities that are well integrated have better health and better ability to solve problems. Communities that are poorly integrated are unable to function optimally. The ability to assess social integration is fundamental to finding ways to improve or update the city. This requires, first and foremost, an appreciation for what people have to say, as it sheds light on the city in which they live. This course will use listening and observation to appreciate the living connectedness of urban dwellers. The course will use selected urban intersections as listening posts.

  **Learning Objectives:**
  - Students will learn the meaning and importance of “social integration”
  - Students will be able to link integration as a social concept to processes in the physical space
  - Students will gain a solid understanding of social integration and the ways in which social integration is reflected in physical space
  - Students will be able to observe a social setting in order to describe its social integration

- **PLAN 801D-02: Facilitating Environmental Solutions**
  - **Faculty:** Ira Stern (NYC Department of Environmental Protection + Pratt faculty)
  - **Run time:** Wednesday 8pm-10:50pm, 5/13/13-6/21/13, Pratt Brooklyn HHN 406

  **Course Description:** This course will focus on the importance of a facilitated process for achieving consensus on environmental solutions, specifically for coastal resiliency. Students will develop strategic and negotiating skills to participate in and/or mediate a process aimed at community consensus on flood hazard mitigation planning and implementation. The centerpiece of this class will be a student-produced and facilitated workshop that will be attended by youth members of the
Rockaway Youth Task Force (RYTF) and the Rockaway Waterfront Alliance. The workshop will be organized around the CoastSmart game, a multi-party role play competition for hazard mitigation grants for coastal communities, which we will work with RYTF to tailor to address emerging coastal resilience issues and proposed policies relevant to the Rockaways. The resulting game will provide a tool for raising awareness and developing consensus-building skills (for students and workshop participants) to more effectively participate in sustainable environmental decision-making. Students will develop and refine facilitation skills through small group exercises and a role play and then apply these skills in the workshop by facilitating each of the competing community committees and other opportunities.

Learning Objectives:
- Understand the various FEMA programs, regulations, and policies that are applied to national disasters through becoming proficient with the strategies that are at the core of the public workshop.
- Facilitate groups exploring financing gaps, identify outstanding needs on a community scale, towards developing innovative financing strategies to aid recovery while being cognizant of a variety of community perspectives.
- Take responsibility for some aspect of producing a public workshop.
- Develop presentations and supporting material for the public workshop.

• PLAN 801A-04: Grassroots Initiatives for Building Community Resilience
  Faculty: Ayse Yonder (Pratt faculty)
  Run time: Wednesday May 22, 9am-4pm and Thursday May 23, 9am-4pm
  Pratt Brooklyn HHN 406A

Course Description:
This two-day workshop will start out with a very short review of the changing approaches to disaster policy since the mid-1990s, and policy debates around concepts like resilience, adaptation and mitigation. This background will help the class to contextualize and identify the range of obstacles to local initiatives, despite the growing recognition of – and lip service paid to -- the importance of community participation in disaster management locally, nationally, and internationally. Then, selected case studies of community led initiatives to build community resiliency in the face of climate change and different kinds of disasters will be discussed. Case studies will explore best and worst case practices from the US and abroad. In analyzing case studies, the focus will be on the role of community and women’s groups in pre- and post-disaster activities, adaptation and mitigation efforts at the community level, and advocacy and partnerships with professionals and (especially local) government agencies to strengthen the resiliency of their communities.

The class will be structured in a seminar/ workshop format, requiring active involvement of class participants. There will be a few lectures by the instructor and guest speakers.

Learning Objectives:
- Develop a clear understanding of the concepts of resilience, adaptation and mitigation, as well as the roles grassroots groups can play in the disaster
management process (preparedness, emergency response, recovery, rebuilding), etc.
  o Become familiar with examples of best and worst case practices from the US and abroad
  o Be able to identify issues and obstacles facing grassroots initiatives and consider how planners can work with and support grassroots groups take leadership roles in building resilient communities.

• **PLAN 801A-01: Continuing GIS**  
  **Instructor:** Juan Camilo Osorio and Sadra Shahab (Pratt faculty).  
  **Run Time:** M 2:00-4:30pm, 5/13/2013 – 6/21/2011, Pratt HHN 306A

  **Course Description:** This course is a follow-up to the introduction to cartographic and quantitative analysis of urban information that was part of the Verbal/Visual set of courses taught to support first-year planning students. The course will be taught this year in support of the RAMP initiative. Collaborating with colleagues at Pratt’s new Spatial Analysis and Visualization Initiative (SAVI), we’ll work with program participants to geocode and locate initiatives, develop asset maps of areas impacted by the storm as well as other vulnerable communities, including human resources, local facilities and other information pertinent to building more resilient communities.

• **EMS 761BP-01: Wetland and Waterfront Planning**  
  **Instructor:** Carter Craft (Pratt Faculty, Metropolitan Waterfront Alliance)  
  **Run time:** Mondays 5-7:50pm May 13 – June 21st Pratt Manhattan 706

  **Course Description:** This course focuses on the basic function of urban waterfronts and wetlands, from both a land and water perspective. During this class we will look at land use and water quality, including existing conditions and trends, as well as the regulatory frameworks that influence how these areas are operated, maintained, developed, and protected. Through discussions, research, lectures and site visits along the NYC and New Jersey waterfront, students will gain a basic understanding of environmental, economic and social equity issues involved in waterfront planning and development.

  **Learning Objectives:**
  o Discuss and debate the implications of public policy and zoning on water quality and waterfront use
  o Argue land/water connectivity and the importance of site planning
  o Apply the regulatory framework to their local waterfront projects

• **Undergraduate Architecture Sandy Seminar**  
  **Instructor:** Deborah Gans (Pratt Faculty, Gans Studio)  
  **Run time:** T/Th 6-9pm May 13-August 2

  **Course Description:** This seminar will create a matrix of the zoning, planning, funding and building regulations and instruments that have emerged since the storm. Maps and texts will describe the factors that will determine design and rebuilding. Students will test the design outcomes of the emerging regulations and parameters, and consider alternative formulas for producing resiliency that will also allow for innovative design.
This publication will focus on Red Hook but also serve as a case study for a larger project that addresses a wide variety of New York urban conditions.

Courses to be offered in cooperation with the National Disaster Preparedness Training Center at the University of Hawai’i

- **National Disaster Preparedness Training Center at the University of Hawai’i**
  
  **HURRIPLAN Resilient Building Design for Coastal Communities**
  
  **Instructors:** Representatives from UH-NDPTC
  
  **Run time:** *Wednesday, May 15 9am-5pm and Thursday, May 16 9am-5pm, Pratt Brooklyn*

  **Course Description:** Of all natural disasters, hurricanes are among the deadliest and most costly in the built environment. This is a two-day performance-level course which provides professionals with the knowledge and training necessary to develop and design hurricane resilient communities and hurricane resistant buildings. Register here: [https://ndptc.hawaii.edu/training/course_delivery/263](https://ndptc.hawaii.edu/training/course_delivery/263)

  **Learning Objectives**
  
  o Discuss existing regulations and propose new standards for community planning and building design in hurricane-prone areas in our age of global climate change
  o Develop an understanding of hurricane science and hurricane history
  o Gain an understanding of current and suggested zoning and building codes which address hurricane forces;
  o Identify design strategies against primarily the hurricane hazards of wind, water and debris damage and design a prototype plan of a hurricane resistant school and community shelter facility

- **Coastal Community Resilience Training**
  
  **Instructors:** Representatives UH-NDPTC
  
  **Run time:** *Date TBD*

  **Course Description:** This four hour awareness level course will provide participants with an understanding of the concept of resilience as it applies to coastal communities with a focus on resilience as a unifying framework for community-based planning, preparedness, response and recovery. The course will emphasize target capabilities to enhance preparedness and response to natural disasters, including chronic, as well as extreme events affecting coastal communities. It will demonstrate how to integrate risk-based, community-based, and collaborative strategies into plans and programs. The goal of the course is to enhance the participant’s ability to support preparedness and response efforts by developing and sustaining resilient coastal communities.

  **Learning Objectives**
  
  o Recognize characteristics of coastal communities that increase the potential harm from natural processes
Understand concepts of resiliency and the benefits of the coastal community resilience framework

Through case studies, identify and discuss best practices and steps that your community can take to build resilience.

Identify additional resources and free training opportunities

Summer Workshop Series

- **NYC Water Taxi Boat Tour: Getting to Know Our Waterfront**
  
  **Tour Guides:** Tom Fox (Tom Fox & Associates), Carter Craft (Metropolitan Waterfront Alliance), Arjan Braamskamp (Consulate General of the Netherlands in New York)
  
  **Run Time:** Friday, May 17th 9am-12pm

  **Course Description:** This guided tour will familiarize participants with the New York City Harbor, the Northeastern shore of Staten Island, Coney Island and the Rockaway Peninsula. Our expert tour guides will go into detail on the naturally occurring atmospheric, hydrological and storm surge processes of our harbor and coastline as well as the impact that man-made development and interventions have on the nature of storm surge and sea level rise. Participants will gain familiarity with the City’s waterfront uses and an enhanced understanding of the relationship between land use on the waterfront and water behavior.

  **Learning Objectives:**
  o Gain familiarity with New York City’s waterfront land uses.
  o Enhance understanding of the relationship between sea level rise, storm surge behavior, and waterfront land uses.
  o Identify waterfront areas that experienced significant damage in Hurricane Sandy as well as areas that are particularly vulnerable to future climate-related events.
  o Identify waterfront areas that went relatively unharmed in Hurricane Sandy and discuss what resiliency measures may have acted as protective features in these areas.

- **Resilience in Public Housing**
  
  **Facilitators:** Beth Bingham (Pratt faculty), Valerie Jean (FUREE); Pat Simon (Ocean Bay CDC); Damaris Reyes (GOLES); Eve Baron and Ayse Yonder (Pratt faculty)
  
  **Run time:** Tuesday, June 18th 6-9pm, Pratt Manhattan 213

  **Course Description:** This workshop will convene a working group comprised of public housing advocates and resident leaders to discuss how NYCHA and the residents could be better prepared to meet any future trauma or weather-related events. They will also develop strategies to pay for retrofitting public housing, so that it could better withstand weather related events, and to cover the costs of organizing public housing residents. (Roughly eighty percent of New York’s public housing is in flood zones.)

  **Learning Objectives**
  o Assess the stresses that public housing underwent in our most recent climate-related disaster, Hurricane Sandy.
- Develop operational and management strategies for public housing staff and residents to minimize the adverse impacts of climate-related disasters on the residents that live in these developments.
- Explore design-based and operational strategies to adapt public housing developments to become socially, economically, environmentally, and physically more resilient.
- Identify vulnerabilities related to social networks facing public housing residents. Develop strategies to strengthen neighbor-to-neighbor ties and build community capacity to respond to climate-related disasters in an equitable manner.

**Adapting to Rising Currents and Climate Change: Best Case Examples from Abroad**

*Faculty:* Prof. Peter Zlonicky (Akademie der Kunste, Germany), Kris Scheerlinck (University of Leuven, Belgium), Representatives from University of Catalonia, Spain, Arjan Braamskamp (Consulate General of the Netherlands in New York) and Joan Byron (Pratt Center for Community Development)

*Run time:* July 17th 6-9pm, July 24th 6-9pm

*Course Description:* This workshop will consist of a series of presentations to be led by Prof. Peter Zlonicky of the Akademie der Kunste, Germany, addressing how other cities have adapted to rising currents and the challenges posed by climate change.

*Learning Objectives:*
- Explore best-case examples of design-based and procedural adaptation strategies currently being employed in coastal communities across the world.
- Discuss the short and long-term social, economic, and environmental implications of various adaptation strategies.
- Discuss the applicability and transferability of these strategies to New York City and the Region.

**Fall Workshop Series**

- **Building Human Capital and Community Organizing**
  *Instructors:* Eddie Bautista (Pratt faculty) and Mindy Fullilove (Columbia University / Pratt Faculty)
  *Run time:* Date TBD, Fall 2013

  *Course Description:* An essential component of community resiliency is the capacity of the community to self-organize and respond to any trauma that might affect it. The community is in essence a first and continual responder. Neighbors knowing neighbors is the foundation upon which this can be done effectively. Thus, organizing and building community is an essential component of any effective response. This workshop will focus on organizing strategies, building community and service delivery on a daily basis and prior to, during and after a traumatic event.

- **Money, Politics, Power and Resiliency Efforts**
  *Facilitators:* Ron Shiffman with representatives from partnership organizations
Runtime: Date TBD, Fall 2013

Course Description: This one day workshop will explore ways to finance and advocate for short and long-term qualitative responses to building a more resilient and sustainable city. These include access to FEMA and NOAA funding, as well as more comprehensive initiatives to address longer-term hard and green infrastructure needs such as a stock transfer fee or Tobin Tax or Robin Hood Tax.

Learning Objectives
- Explore strategies for improving transparency concerning the expenditure of public post-disaster recovery money, particularly in low-income and vulnerable populations.
- Develop equitable financing programs that do not perpetuate the “sorting” and “segregating” of communities into residential enclaves that increase community vulnerability at the detriment of us all.
- Explore innovative financing and incentive models that enable recovery from traumatic climate-related events in an equitable manner.
- Explore innovative and equitable models for financing adaptation measures in preparation for increasingly frequent traumatic climate-related events.

Making Smart Grid and Broadband Technologies Work for Underserved Communities
Facilitator: Maya Wiley (Center for Social Inclusion)
Run time: Date TBD, Fall 2013

Course Description: This workshop will explore how new smart grid technology and state of the art broadband technology can promote universal, affordable and ubiquitous broadband, thereby improving the public’s access to a reliable and steady source of electric power, and low cost and continuous access to critical wireless communication technologies. [Emphasis will be on developing these technologies in traditionally underserved and vulnerable areas.

Learning Objectives
- Assess the breakdowns in telecommunications and broadband networks that accompanied Hurricane Sandy.
- Identify barriers to broadband development in low income and vulnerable populations; address the “digital divide.”
- Develop strategies for breaking through these barriers and creating universal access to broadband and other reliable communication networks.
- Explore strategies for making broadband and telecommunication infrastructure more resilient in the face of future climate-related events.

Hazardous Materials and the Impact on Communities
Instructor: Eddie Bautista (Pratt Faculty, NYC-EJA)
Run time: Date TBD, Fall 2013
Course Description: This workshop will explore the impacts of hazardous materials on communities, with a focus on environmental justice communities. The intent is to develop strategies to coordinate the elimination of hazardous materials from industries in such a way as to constructively assist those industries in their conversion and adaptation to clean and high road production processes. This is important for disaster planning since these toxic materials are released during disasters, endangering residents and workers, both during the event and during cleanup.