

Experiential learning as a way to foster realistic comparative policy analysis

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Teaching Comparative Policy: Syllabi, Cases, Simulations & More

(For the course bibliography, scroll down)

Itineraries of the students' visits to Bogotá, Villapinzón, and Pittsburgh:

During the field visits, both groups of students meet and share their research on water issues, talk to other professors invited to make presentations relevant for the capstone, and meet policy makers addressing aspects related to water management. For example, students met with local officials of the municipality where the students from EGOB have been conducting research for their capstone course. Students also met with officials of the Regional Development Agency of the Cundinamarca region as well as with officials at the Ministry of the Environment, to learn about water policy at the local level.

Below are the different itineraries of the capstone visits:

**PROGRAM OF ACTIVITIES
 UNIVERSITY OF THE ANDES AND
 MUNICIPALITY OF VILLAPINZON'S VISIT
 OCTOBER 23-27, 2017
 Pittsburgh, Pennsylvania**

Horario	Actividad	Participantes	Lugar y Comentarios
Martes 24			
09:00-10:30	Discussion between students of capstone GSPIA and University of the Andes	Colombian group Pitt students	Wesley W. Posvar Hall, Pittsburgh, PA 15260, Room 3200 (third floor)
11:00-12:30	Visit to Nine Mile Run	Colombian Group Pitt students Nine Mile Run: Mike Hiller Director of Policy and Outreach, Brenda Smith, Executive Director and Theresa Muehlbauer, Communications & IT Coordinator Ms Zinnia Scott, OBB Lina Dostilio, Assistant Vice Chancellor, Community Engagement Pitt	Regent Square, Lancaster Ave Parking Lot en Lower Frick Play Area. Nine Mile Run is the largest urban stream restoration Project in the US.

12:45-13:30	Lunch and reflections		Nancy's East End Dinner
14:00 –14:45	Visita a Homewood: Green infrastructure projects		GSPIA Pitt students are working with NMRWA in three different projects related to the Green infrastructure projects the organization has launched in the RRRP in Homewood.
15:00 – 17:00	Visita Manufacturing Assistance Program		Project of the Swanson School of Engineering, manufacturing skills training Project for adults and disadvantage population. Dr. Bidanda will talk about the Project and guide a tour of the facilities.
19:00	Dinner downtown	EGOB students and professor	TBD
Miércoles 25			
7:45	Meet outside Residence Inn in Oakland	Colombian group Pitt students, Note preparation and discussion during trip	Meet to travel to Washington, PA.

09:00-13:00	Visit Coalfield Justice	Colombian group Pitt students Mike Hiller, Nine Mile Run	<p>184 South Main St, Washington, PA 15301</p> <p>Civil society organization that works with communities to respond to extreme energy extraction.</p> <ol style="list-style-type: none"> 1. Meet at the Center for Coalfield Justice Office and do introductions, layout the day, and discuss our work generally. 2. Stop at the Bailey Mine Coal Preparation Plant - Largest one in North America and is where they process coal to wash off impurities then ship to market 3. View Coal Refuse Disposal Area or toxic valley fills that hold millions of gallons of waste from washing coal and have displaced entire communities. 4. Ryerson Station State Park - The only state park in Greene County, PA and has been negatively impacted by mining but also CCJ has done work to protect streams in the park this past year. 5. Fracking Pad - It may be active but will show the landscape disturbance of fracking
13:45-14:30	Lunch	Reflection after visit of coal mine	Primanti Brothers
15:30-17:00	Talk Profesor Terrence Collins	Colombian group Pitt students	<p>Wesley W. Posvar Hall, Pittsburgh, PA 15260, Room 3431 (Third floor).</p> <p>Prof. Collins is the Director of the Institute for Green Science at Carnegie Mellon University. He will talk about the big picture of sustainability, cover the fields of chemistry where there are exciting sustainability challenges to be solved, talk about the ethics of sustainability appropriate for decision makers, and, about the implications associated with the massive buildup of gas mining and chemicals manufacturing.</p>
Jueves 26			

09:30	Meet outside Residence Inn in Oakland	Colombian group Pitt students	Meet to travel to Washington, PA. or meet at the treatment plant.
10:30-12:00	Visit Sewage Treatment Plant, Penn Hills	Colombian group Pitt students	91 Colorado St, Verona, PA 15147 Tom O'Grady, Director of the pan Will give us a tour of the plant and treatment process
12:30-13:30	Lunch and reflections		Wesley W. Posvar Hall, Pittsburgh, PA 15260, Room 3431 (Third floor) CONNECT, The Congress of Neighboring Communities (CONNECT) brings together the City of Pittsburgh and surrounding municipalities to identify common public policy challenges and advocates for collective change on behalf of Allegheny County's urban core.
14:00-15:30	Meeting with Kristen Michaels, Director of CONNECT, Tim Rogers, Manager of Shaler Township and Mary Ellen Ramage, Manager of Etna Borough	Colombian group Pitt students	Wesley W. Posvar Hall, Pittsburgh, PA 15260, Room 3431 (Third floor) CONNECT, The Congress of Neighboring Communities (CONNECT) brings together the City of Pittsburgh and surrounding municipalities to identify common public policy challenges and advocates for collective change on behalf of Allegheny County's urban core.
15:30-16:30	Meeting with Catherine Deloughery, Allegheny Conference	Colombian group Pitt students	Wesley W. Posvar Hall, Pittsburgh, PA 15260, Room 3431 (Third floor) The Allegheny Conference has a rich history of bringing together the region's public and private leadership over two generations to improve the economy and quality of life of the 10 counties of southwestern Pennsylvania. The first generation, from 1940s to 1970s focused on environmental restoration and cleaning; the second one, since 1980s until currently, is focus on the regions' economic diversification and quality.
Viernes 27			
09:00-11:00	Roundtable discussion on capstone experiences, topic;	Colombian group Pitt students Nine Mile Run: Mike Hiller,	Wesley W. Posvar Hall, Pittsburgh, PA 15260, Room 3911 (Third floor)

	water at the center of local development	Lina Dostilio, Assistant Vice Chancellor Community Engagement Centers	Description of the event on next page
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October 27th
 9-11 am, W W Posvar Hall, Room 3911
 Join us for a student exchange of capstone experiences
 working at the local level on global challenges

Roundtable discussion on capstone experiences
Topic: Water at the center of local development

Water is a central element of local development. On the one hand, water is not only essential for human life, but is also necessary for social and economic development of society, as it is a basic requirement for food production and industrial activity. Access to water in quantity and quality is an indicator of social development. On the other hand, even though there is a widespread recognition of the need to protect water sources and ecosystems illustrating the increased level of commitment in sustainable water management in the global development agenda (for example the SDGs) passage and implementation of effective policies for the protection of water systems is still missing in most countries. In this context, local actions face significant obstacles.

With this in mind, the purpose of this round table is to have a conversation on the experiences that students have had working at the local level on global related challenges, as well as to listen to the perspective from other actors working at the local level. The conversation will be guided by the following questions:

- Which actors are critical for the recognition of water as a central factor of local development?
- What factors ease and what factors limit the acceptance of water as an essential factor of local development?
- What are the main obstacles to working on water management at the local level?
- How feasible do you think is the implementation of the policies recommended for sustainable water management, like integrated water resource management in different places?
- Discuss the opportunities and limitations of implementing similar processes in different places, what are the main constraints?

Roundtable participants:

University of Andes, Colombia Students from Capstone course working with local government of Villapinzón Mayor of Villapinzón	GSPIA, University of Pittsburgh Students from Capstone Course working with Nine Mile Run Watershed Association, NMRWA Michael Hiller, NMRWA	Community engagement centers, University of Pittsburgh Lina Dostilio Assistant Vice Chancellor, Community Engagement
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Agenda GSPIA University of Pittsburgh Students to Capstone Project to Villapinzón Municipality

March, 2018

Date and Time	Activity	Place
Monday March 5th		
7:00 am	Depart for CAR offices Note preparation	Departure from Residence City U
8:00 - 9:00 am	Actions to recover the Bogotá River CAR Anibal Acosta FIAT Manager of the Bogotá River	CAR Offices 24 Street No. 62-49 Complejo Empresarial GE 7th Floor General Management
10:00-11:00 am	Experience: Analysis of Rural Water in Villapinzón Manuel Rodríguez, Professor of Environmental Engineering. University of the Andes	University of the Andes Room #C107
11:00 am - 12:00 pm	Water Management Plan for the Bogotá River Jairto Diez Díaz. Director of Integrated Water Resource Management at the Ministry of Environment and Sustainable Development	
12:30 m - 2:00 pm	Local Planning in Colombia Javier Pérez Burgos Lunch	University of the Andes Conference Room School of Government
2:30-3:30 pm	Meeting with Eduardo Pizano, Director of the School of Government, University of the Andes	
3:00-4:00	Jovana Ocampo meeting with Rosa De Ferrari, student from the Center for Latinamerican Studies at the University of Pittsburgh	School of Medicine, Building Q, 8th floor
3:45-4:30	Marcela and Center for Latinamerican Studies team meeting with Manuel Rodríguez and Diego Lucumí	University of the Andes Conference Room School of Government
5:00-6:00	Students exchange discussion about their projects	University of the Andes Room #C107
7:30	GSPIA students dinner with professor and GSPIA alumni, discussion and reflection	TBD
Tuesday March 6th		
7:00 am	Depart for Wastewater Treatment Plant (PTAR) "El Salitre"	Departure from Residence City U
8:00 -11:00 am	Visit PTAR Salitre and Canoas Project	PTAR Salitre
12:00 m - 1:30 pm	Lunch	
1:30-4:30 pm	Depart for Villapinzón	Depart from Residence City U
4:30-6:00 pm	Welcome Gildardo Melo Mayor of Villapinzón	Villapinzón Mayor's Office

Date and Time	Activity	Place
6:15 – 7:30 pm	Discussion session students and Villapinzón Mayor	Villapinzón Mayor's Office
Wednesday March 7th		
7:00 am-1:00 pm	Visit Páramo de Guacheneque (headwaters of the Bogotá river)	Departure from Villapinzón accommodation
1:00-2:00 pm	Lunch and discussion	
2:00-5:00 pm	Visit to Rural Aqueducts Visit to Tanneries Meeting with local producers	
5:00 PM	Return to Bogotá, discussion during the trip, note preparation	Departure from Villapinzón's municipality
Thursday March 8th		
8:00 - 9:30 am	Feedback and reflection meeting and closing activity	University of the Andes Conference Room School of Government

Course syllabus overview and bibliography¹

The list below only includes the core reading materials of the course. In addition to the materials listed below, students read other documents like newspaper articles and official reports, but they are not included here as those documents are updated periodically. The additional materials help students understand the nature of the issues. The organization of the weekly sessions is shown below. Each session is allotted 3 hours.

- Week 1-7: Lectures
- Week 8 and 9: Student travel and return
- Week 10-16: Students hands-on work (workshop sessions)

Part 1: Lectures sessions

WEEK 1: Understanding the United Nations Sustainable Development Framework and Goal #6 on water and sanitation

- United Nations, General Assembly (2001). *Road map towards the implementation of the United Nations Millennium Declaration, Report of the Secretary-General. A/56/326*. Executive summary and pp. 18-22 (focused on water and sanitation).
- WHO/UNICEF, 2017. *Progress on Drinking Water, Sanitation and Hygiene: Update and SDG baseline*. Geneva: World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 2017. Sections 2-4.
- UN Water. 2018. *Synthesis report on water and sanitation*. UN: New York, NY.

¹ Note that some of the core readings of the course have been updated, as instruction has taken place during various years.

- Patole, Manohar. 2018. Localization of the SDGs through Disaggregation of KPIs. *Economies*. Vol. 6, Issue 15.
- Riggs, Hughes, Irvin and Leopard. 2017. An Overview of Clean Water Access Challenges in the US. Global Water Challenge and the Environmental Finance Center, UNC: Chapel Hill.
- Veronica Herrera SDGs

WEEK 2: The water cycle

- Pidwirny, M. 2006. "The Natural Spheres: The Hydrologic Cycle". *Fundamentals of Physical Geography*, 2nd edition.
- Dzurik, A. 2003. *Water Resources Planning*, Chapter 2: Hydrological Fundamentals. Rowman and Littlefield Publishers. Oxford, UK. Pp. 11-25.
- Day and Dallas, 2011. Understanding the basics of water quality, in Grafton and Hussey. *Water Resources Planning and Management*. Cambridge: Cambridge University Press.
- Falck and Hecht, 2006. *The Sewering and Salvaging of Nine Mile Run*. Western Pennsylvania History.

WEEK 3: Paradigms of water sector management and water governance

- Postel, Sandra. 2009. Water for Life. *Frontiers in Ecology and the Environment*, Vol. 7, No. 2.
- Gleick, Peter. 2000. The Changing Water Paradigm. A look at Twenty-First Century Water resource development. IWRA. Vol. 25, No. 1, pp. 127-138.
- Christian, Smith, Gleick and Cooley. 2013. US Water Policy Reform. *The World's Water*.
- Pennington, K and Thomas Cech. 2010. Chapter 13: Roles of Federal, Regional, State and Local Water Management Agencies. *Introduction to Water Resources and Environmental Issues*. Cambridge University Press.
- Schneider, D. 2012. Hybrid Nature: Sewage treatment and contradictions of the industrial ecosystem. Chapter 5.
- Dzurik, 1990. *Water Resources Planning*, Chapter 3 and 4. Water Law and water policy. Rowman and Littlefield Publishers. Oxford, UK

WEEK 4: Governing the commons

- Dorsch and Flachslan, 2017. A Polycentric Approach to Global Climate Governance. *Global Environmental Politics*, Vol. 17:2.
- Ostrom, 2012. Why do we need to protect institutional diversity? *European Political Science*, Vol. 11.
- Giest, Sarah. 2015. Comparative Analysis of Sweden's Wind Energy Policy: The Evolution of "Coordinated" Networks. *Journal of Comparative Policy Analysis*, Vol. 17, Issue 4.
- Pacheco-Vega, R. 2014. The Impact of Elinor Ostrom's Scholarship on Commons Governance in Mexico An Overview. IUCN Commission on Environment, Economic and Social Policy.

WEEK 5: Integrated Water Resource Management framework

- Pahl-Wostl, Jeffrey and Sendzimir, 2011. Adaptive and integrated water resources management. In Grafton and Hussey. *Water Resources Planning and Management*. Cambridge: Cambridge University Press.
- Varis, Biswas, Tortajada and Lundqvist. 2006. Megacities and Water Management. *Water Resources Development*. Vol. 22, No. 2, pp. 337-394
- World Water Council, 2015. *IWRM A New Way Forward*.

- Global Water Partnership, 2007. How will IWRM will contribute to achieving the MDGs. Technical Committee Policy Brief No. 4, Stockholm, Sweden.

WEEK 6: Integrated Water Resource Management implementation

- UNEP, 2012. Status Report on the Application of Integrated approaches to water resource management. Sections 1-5.
- Butterworth, Warner, Moriarty, Smits and Batchelor. 2010. Finding practical approaches to Integrated Water Resource Management. *Water Alternatives*, Vol. 3, Issue 1.

WEEK 7: Collaboration and stakeholder engagement

- Shandas, Vivek, and W. Barry Messer. 2008. "Community-Based Environmental Stewardship in the Portland Area." *Journal of the American Planning Association* 74(4): 408-18.
- Loux, Jeff. 2011. Collaboration and stakeholder engagement. In Grafton and Hussey. *Water Resources Planning and Management*. Cambridge: Cambridge University Press.
- González Rivas, Marcela, Karim Beers, Mildred E. Warner, and Monroe Weber-Shirk. 2014. "Analyzing the Potential of Community Water Systems: The Case of AguaClara." *Water Policy* 16: 557-77.
- Berkes, F. 2007. Community Based Conservation in a Globalized World. *PNAS*. Vol. 104, No. 39.