

SUMA K4169 Sustainability Metrics

Instructors: Adam Freed & Aaron Koch

Course Description

Over the past two decades, various institutions, both public and private, have begun to set clear targets for environmental performance and are increasingly focusing on the use of analytical tools to assess problems and measure their progress toward sustainability. This course will address the use of metrics, data, and indicators to measure sustainability, including how they are used to shape policies and track progress.

Students will be asked to consider the strengths and limitations of quantitatively analyzing data. The course will survey a broad range of environmental challenges and evaluate the choices confronting public officials, private companies, colleges and universities, environmental advocates, and citizens.

A goal of this course is to make students acquainted with the debate, challenges, and opportunities of a changing climate. The course will focus on the solutions and responses to environmental challenges by using real world and current examples. Classes will particularly focus on the various policy initiatives and actions that policymakers are taking globally and locally, including the specific efforts of the C40 Cities (the 40 largest cities in the world) as well as New York City's efforts through PlaNYC.

Students will be required to critically evaluate what they read and hear. In addition, the course will give students an opportunity to learn how to express their ideas verbally and in written form and conduct critical analysis of environmental data to develop and implement public policy. Assignments will give students the opportunity to use their technical and analytical skills while understanding the real world applications that will be important to their future professional work as planners, policymakers, advocates, architects, designers, and/or environmentalists.

Course Objectives

By the end of this course students should be able to:

- Understand the use and development of sustainability indicators, including city, national, university, and corporate indicators
- Understand the complexity and challenges in making cross-jurisdictional comparisons
- Evaluate the transparency and effectiveness of sustainability programs
- Use metrics to identify environmental needs and develop public policy
- Analyze and evaluate demographic, environmental, operational, and performance data to develop sustainability indicators

- Understand that addressing complex environmental challenges involves making trade-offs and that choices are made based on the perspective and interests of the decision-makers
- Understand why the quantitative analysis of data is critical for understanding environmental issues and designing the most effective solutions
- Describe the process of life cycle analysis and explain how to apply life cycle analysis to complex environmental issues
- Understand the strengths and weaknesses of cost-benefit analysis

Course Schedule

Week 1: Sustainability Metrics Overview

Week 2: Life Cycle Analysis

Week 3: Measuring Sustainability: Cities and Governments

Week 4: Climate Change Mitigation: Measuring GHG Emissions

Week 5: Energy: Efficiency and Green Buildings

Week 6: Air Quality: Particulate Matter and Heating Oil

Week 7: Solid Waste: Transportation and Landfill Diversion

Week 8: Water: Supply and Freshwater Protection

Week 9: Green Infrastructure: Stormwater and Trees

Week 10: Climate Resilience: Science and Impacts

Week 11: Climate Resilience: Risk and Strategies

Week 12: Measuring Sustainability: Colleges and Universities

Week 13: Measuring Sustainability: Corporations

Course Requirements

You do not have to purchase any reading material for this course. All required readings will be made available to students. Course readings will include reports from governments, NGOs, and corporations, as well as articles from peer-reviewed journals, mass-market periodicals, and the popular press. "Required" readings are to be read BEFORE coming to class. "Supplemental" readings will also be provided throughout the class. While they are not required, they will provide additional information that will enhance your knowledge of the course subject matter.

Week 1: Sustainability Metrics Overview

Required Readings:

- National Research Council, "Sustainability and the U.S. EPA." Washington, DC: The National Academies Press, 2011 (Chapter 2 and Appendix E).
- United Nations, "Report of the World Commission on Environment and Development: Our Common Future." 1987 (just Chapter 2, pages 36-51).
- Hardi, Peter and Terrence Zdan, "Assessing Sustainable Development: Principles in Practice." The International Institute for Sustainable Development, 1997 (just pages 1-20).
- United Nations, "Agenda 21." UN Conference on Environment & Development, June 1992 (just the first half of Chapter 40).
- Supplemental Readings:

- Fiksel, Joseph, Jeff McDaniel, and Catherine Mendenhall. "Measuring Progress Towards Sustainability Principles, Process, and Best Practices." Battelle Memorial Institute, 1999.
- Emerson, J.W., A. Hsu, M.A. Levy, A. de Sherbinin, V. Mara, D.C. Esty, and M. Jaiteh, "Environmental Performance Index and Pilot Trend Environmental Performance Index." New Haven: Yale Center for Environmental Law and Policy, 2012.
- • United Nations, "The Millennium Development Goals Report 2012". 2012. • UN Millennium Goals Indicators website - <http://mdgs.un.org/unsd/mdg/Default.aspx> • Environmental Performance Index website - <http://epi.yale.edu/>

Week 2: Life Cycle Analysis

Required Readings:

- United Nations Environment Programme, "Guidelines for Social Life Cycle Assessment of Products." 2009 (pages 5, 8-10, and 33-42).
- Curran, Mary Ann, "Life Cycle Assessment: Principle and Practice." U.S. Environmental Protection Agency, May, 2006 (pages 1-18).
- IFC International, "Assessment of New York City Natural Gas Market Fundamentals and Life Cycle Fuel Emissions." Prepared for the New York City Mayor's Office of Long-Term Planning and Sustainability, August, 2012 (pages 1-3 and 38-55).
- Specter, Michael, "Big Foot." The New Yorker, February 25, 2008.

Supplemental Readings:

- International Organization for Standardization, "ISO 14040: Environmental Management – Life Cycle Assessment – Principles and Framework." July 1, 2006.
- International Organization for Standardization, "ISO 14044: Environmental Management – Life Cycle Assessment – Principles and Framework." July 1, 2006.
- Dettore, Christopher, "Comparative Life-Cycle Assessment of Bottled vs. Tap Water Systems." University of Michigan Center for Sustainable Systems, December 14, 2009.
- Goleman, Daniel and Gregory Norris, "How Green Is My Bottle?" The New York Times, April 19, 2009.
- Sustainable Victoria, "Comparison of Existing Life Cycle Analysis of Shopping Bag Alternatives," April 18, 2007.
- Montalbo, et. al., "Life Cycle Assessment of Hand Drying Systems," MIT, September 19, 2011.
- Goleman, Daniel and Gregory Norris, "How Green is My iPad," The New York Times, April 4, 2010.
- Blanke, Michael and Bernhard Burdick, "Food (Miles) for Thought: Energy Balance for Locally-Grown Versus Imported Apple Fruit," University of Bonn, 2005.
- U.S. Department of Energy, "Life-Cycle Assessment of Energy and Environmental Impacts of LED Lighting Products Part I: Review of the Life-

- Cycle Energy Consumption of Incandescent, Compact Fluorescent, and LED Lamps,” February 2012.

Week 3: Measuring Sustainability

Required Readings:

- C40 Cities Climate Leadership Group, “An ‘Alternative Approach for Cities’.” December 2011.
- Carbon Disclosure Project, “Measurement for Management: CDP Cities 2012 Global Report.” 2012 (pages 2-9, 50-75, and skim the rest).
- The Economist Intelligence Unit, “US and Canada Green City Index.” Siemens, 2011 (pages 1-20, 28- 29).
- Lorinc, John, “Why Ranking Cities Can Be Such a Tricky Business”. The Atlantic Cities, October 13, 2011.
- City of Santa Monica, “Sustainable City Report Card”. Santa Monica Office of Sustainability and the Environment, September 2010.
- City of New York, “PlaNYC 2011 Update”. Mayor’s Office of Long-Term Planning & Sustainability, April 2011 (pages 178-179).
- City of New York, “PlaNYC 2012 Progress Report”. Mayor’s Office of Long-Term Planning & Sustainability, April 2012 (pages 28-29).

Supplemental Readings:

- Price Waterhouse Cooper, “Cities of Opportunity”. Partnership for New York City, 2012.
- Hoornweg, Daniel, et. al. “City Indicators: Now to Nanjing” The World Bank, 2006.
- Hoornweg, Dan, et. al. “The Current Status of City Indicators: Part of a Study to Assist Cities in Developing an Integrated Approach for Measuring and Monitoring City Performance” Submitted to the World Bank, December 2006.
- ICLEI USA, “STAR Community Index: Sustainability Goals and Guiding Principles.” ICLEI USA, 2010.
- ICLEI Star Community Index website - <http://www.icleiusa.org/sustainability/star-community-index/>
- New York City Environmental Public Health and Sustainability Tracking Portal - <https://gis.nyc.gov/doh/track/>
- Sustainlane - <http://www.sustainlane.com/us-city-rankings/>
- Our Green Cities - <http://ourgreencities.com>
- Global City Indicators Facility website - <http://www.cityindicators.org/Default.aspx>

Week 4: Climate Change Mitigation: Measuring GHG Emissions

Required Readings:

- City of New York, “Inventory of New York City Greenhouse Gas Emissions, September 2011”. Jonathan Dickinson and Andrea Tenorio. Mayor’s Office of Long-Term Planning and Sustainability, New York, 2011.
- C40 and ICLEI, “Global Protocol for Community Scale Greenhouse Gas Emissions Pilot 1.0.” May 2012.

- C40 and ICLEI, “International Partners Release Pilot Global Protocol for Community-Scale Greenhouse Gas Emissions.” May 14, 2012 Press Release.
- Owen, David, “Green Manhattan.” The New Yorker, October 18, 2004.
- Supplemental Readings:
- Dodman, David. “Blaming Cities for Climate Change? An Analysis of Urban Greenhouse Gas Emissions Inventories.” Environment and Urbanization, April 2009.
- Socolow, Robert H. & Stephen W. Pacala, “A Plan to Keep Carbon in Check.” Scientific American, September 2006.
- Millard-Ball, Adam, “Do City Climate Plans Reduce Emissions?” AERE Summer Meeting, May 2011.
- Greenhouse Gas Protocol - <http://www.ghgprotocol.org/city-accounting>

Week 5: Energy: Efficiency and Green Buildings

Required Readings:

- City of New York, “PlaNYC Update.” Mayor’s Office of Long-Term Planning and Sustainability, April 2011 (just the Energy Chapter, pages 100-117).
- City of New York, “Greener, Greater Buildings Plan.” Mayor’s Office of Long-Term Planning and Sustainability, December 2009.
- City of New York, “New York City Local Law 84 Benchmarking Report.” Mayor’s Office of Long-Term Planning and Sustainability, August 2012.
- Supplemental Readings:
- City of New York Green Buildings and Energy Efficiency website - <http://www.nyc.gov/html/gbee/html/home/home.shtml>
- City of New York, “Long-Term Plan to Reduce Energy Consumption and Greenhouse Gas Emissions of Municipal Buildings and Operations.” Energy Conservation Steering Committee, July 2008.
- Steven Winter Associates and HR&A Advisors, “Recognizing the Benefits of Energy Efficiency in Multifamily Underwriting.” Deutsche Bank in conjunction with Living Cities, January 2012.
- Urban Green Council, “Cost of Green in NYC.” Fall 2009.
- ICLEI, “Case Study: New York City’s Greener, Greater Buildings Plan.” Produced as part of the Commercial Energy Policy Toolkit with the Institute for Market Transformation, November 2011.

Week 6: Air Quality: Particulate Matter and Heating Oil

Required Readings:

- City of New York, “PlaNYC Update.” Mayor’s Office of Long-Term Planning and Sustainability, April 2011 (just the Air Quality Chapter, pages 118-131).
- City of New York, “Air Pollution and the Health of New Yorkers: The Impact of Fine Particulates and Columbia University: Sustainability Metrics - Fall 2012
- Ozone.” New York City Department of Health and Mental Hygiene, 2011.
- City of New York, “New York City Community Air Survey: Results from Year One Monitoring 2008- 2009.” New York City Department of Health and Mental Hygiene, 2011.

Supplemental Readings:

- Environmental Defense Fund & Urban Green Council, "The Bottom of the Barrel." 2009.
- Cromar, Kevin and Jason Schwartz, "Residual Risks: The Unseen Costs of Using Dirty Oil in New York City Boilers." New York University School of Law, Institute of Policy Integrity, January 2010.
- Bloomberg, Michael and Rohit Aggarwala, "Think Locally, Act Globally: How Curbing Global Warming Emissions Can Improve Local Public Health." American Journal of Preventive Medicine, Vol. 35, No 5, 2008.
- New York City Environmental Public Health and Sustainability Tracking Portal - <https://gis.nyc.gov/doh/track/>
- NYC Clean Heat - <http://www.nyccleanheat.org/>

Week 7: Solid Waste: Transportation and Landfill Diversion

Required Readings:

- City of New York, "PlaNYC Update." Mayor's Office of Long-Term Planning and Sustainability, April 2011 (just the Solid Waste Chapter, pages 132-145).
- City of New York, "Comprehensive Solid Waste Management Plan." Department of Sanitation, September 2006 (just the Executive Summary, pages ES-1 - ES-17).
- City of New York, "Request for Proposals for New and Emerging Solid Waste Management Technology." Department of Sanitation, March 2012 (just Sections II and III).

Supplemental Readings:

- U.S. Environmental Protection Agency, "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2010." December, 2011.
- Eurostat, "Waste Statistics." European Commission, July 2011.
- Price, Andrew, "Can Hong Kong Solve its Garbage Crisis?" The Atlantic Cities, February 6, 2012.
- Rosenthal, Elisabeth, "Europe Finds Clean Energy in Trash, but U.S. Lags." The New York Times, April 12, 2010.
- Stengler, Ella, "Waste-to-Energy in Europe." Confederation of European Waste-to-Energy Plants presentation of the Third Report on Waste-to-Energy Plants in Italy by Federambiente and ENEA, April 12, 2012.
- RenoSam and Rambøll, "Waste-to-Energy in Denmark: The Most Efficient Waste Management System in Europe." 2006.

Week 8: Water: Supply and Freshwater Protection

Required Readings:

- City of New York, "PlaNYC Update." Mayor's Office of Long-Term Planning and Sustainability, April 2011 (just the Water Supply Chapter, pages 74-85).
- NYC Water Board, "Public Information Regarding Water and Wastewater Rates." April 2012.

- City of New York, “2011 Long-Term Watershed Protection Plan.” Department of Environmental Protection, December 2011 (just the Introduction, pages 1-22).
- Columbia University: Sustainability Metrics - Fall 2012 6
- U.S. Environmental Protection Agency, “The Economic Benefits of Protecting Healthy Watersheds.” EPA 841-N-12-004 Fact Sheet, April 2012.
- Appleton, Albert, “How New York City Used an Ecosystem Services Strategy Carried out Through an Urban-Rural Partnership to Preserve the Pristine Quality of Its Drinking Water and Save Billions of Dollars and What Lessons It Teaches about Using Ecosystem Services.” November 2002.
- Supplemental Readings:
- Aspen Institute, “Sustainable Water Systems: Step One – Redefining the Nation’s Infrastructure Challenge.” May, 2009.
- McKinsey, “Charting Our Water Future: Economic Frameworks to Inform Decision-Making.” 2009.
- City of New York, “Filtration Avoidance Annual Report.” Department of Environmental Protection, March 2012.
- Brown, Amber and Marty D. Matlock, “A Review of Water Scarcity Indices and Methodologies.” University of Arkansas, The Sustainability Consortium, White Paper #106, April 2011.

Week 9: Green Infrastructure: Stormwater and Trees

Required Readings:

- City of New York, “Sustainable Stormwater Management Plan.” Mayor’s Office of Long-Term Planning and Sustainability, December 2008 (pages 7-11 and 49-59).
- City of New York, “NYC Green Infrastructure Plan.” Department of Environmental Protection, September 2009 (pages 1-11 and 19-35).
- Peper, Paula, et. al. “New York City, New York Municipal Forest Resource Analysis.” Center for Urban Forest Research, U.S. Department of Agriculture, April 2007 (pages 1-3 and 17-27).
- Supplemental Readings:
- City of Philadelphia, “Green City Clean Water: The City of Philadelphia’s Program for Combined Sewer Overflow Control.” Amended by the Philadelphia Water Department, June 1, 2011.
- Garrison, Noah and Karen Hobbs, “Rooftops to Rivers II.” Natural Resources Defense Council, 2011.
- Center for Neighborhood Technology, “The Value of Green Infrastructure: A Guide to Recognizing its Economic, Environmental, and Social Benefits.” January 2011.
- American Rivers, “Banking on Green: A Look at How Green Infrastructure Can Save Municipalities Money and Provide Economic Benefits Community-wide.” A joint report with the American Society of Landscape Architects, ECONorthwest, and Water Environment Federation, April 2012.

Week 10: Climate Resilience: Science and Impacts

Required Readings:

- The New York City Panel on Climate Change, "Climate Change Adaptation in New York City: Building a Risk Management Response." Annals of the New York Academy of Science, May, 2009 (Introduction and Chapters 3 and 7).
- Aerts, J. C. and Wouter Botzen, "Flood-Resilient Waterfront Development in New York City: Bridging Flood Insurance, Building Codes, and Flood Zoning". Annals of the New York Academy of Sciences, 2011 (pages 13-26).
- Silver, Nate, "A New York Hurricane Could Be a Multi-Billion Dollar Disaster." New York Times FiveThirtyEight Blog, August 26, 2011.
- Testimony for David Bragdon, New York City Council Oversight Hearing: Climate Change, Scheduled for December 16, 2011.
- Supplemental Readings
- U.S. Global Change Research Program, "Global Climate Change Impacts in the United States." Cambridge University Press, 2009.
- "Ranking Port Cities with High Exposure and Vulnerability to Climate Extremes." The Organisation for Economic Co-operation and Development, November 19, 2008.

Week 11: Climate Resilience: Risk and Strategies

Required Readings:

- Dixit, Aarjan, Heather McGray, Javier Gonzales, and Margaret Desmond, "Ready or Not: Assessing National Institutional Capacity for Climate Change Adaptation" World Resource Institute, 2012 (pages 3-17).
- Faris, Craig, "City of Chicago Analysis of Economic Impacts from Climate Change." Oliver Wyman, 2008.
- Economics of Climate Adaptation Working Group, "Shaping Climate-Resilient Development: A Framework for Decision-Making." 2009 (just the Introduction and Chapter 1, pages 14-33).
- Supplemental Readings:
- World Economic Forum, "A Vision for Managing Natural Disaster Risk: Proposals for Public/Private Stakeholder Solutions." January 2011.
- Harmeling, Sven, "Global Climate Risk Index 2012: Who Suffers Most from Extreme Weather Events? Weather-related Losses in Events in 2010 and 1991 to 2010." German Watch Institute, 2011.
- MunichRe, "Megacities - Megarisks Trends and Challenges for Insurance and Risk Management." Münchener Rückversicherungs-Gesellschaft, 2004.

Week 12: Measuring Sustainability: Colleges and Universities

Required Readings:

- Sustainable Endowments Institute, "The College Sustainability Report Card." 2011 (this is an online- only report, so click through to read the Executive Summary, Categories, Methodology, Indicators, and results for Ivy League Schools).
- The Association for the Advancement of Sustainability in Higher Education, "STARS Version 1.2 Technical Manual." February 2012 (just pages 7-19 and skim the rest).

- American College & University Presidents' Climate Commitment, "Celebrating Five Years of Climate Leadership." 2011 (just the first section, pages 1-11).
- Columbia, "Baseline Greenhouse Gas Emissions Inventory 2005-06 and Action Plan." October 23, 2008.
- Columbia University Environmental Stewardship website (skim) - <http://www.environment.columbia.edu/initiatives>

Supplemental Readings:

- University of Pennsylvania, "Climate Action Plan." September 15, 2009.
- Yale University, "Sustainability Strategic Plan 2010-2013."
- Harvard University, "Report of the Harvard University Task Force on Greenhouse Gas Emissions." 2008.
- New York University, "Climate Action Plan." Winter 2009.
- The Princeton Review, "The Princeton Review's Guide to 322 Green Colleges 2012 Edition." 2012.
- Galbraith, Kate, "Ranking Universities by 'Greenness'" New York Times, August 20, 2009.
- Sierra Club Cool Schools Rankings - <http://www.sierraclub.org/sierra/201209/cool-schools/complete-rankings-cool-schools.aspx>

Week 13: Measuring Sustainability: Corporations

Required Readings:

- Global Reporting Initiative, "A New Phase: The Growth of Sustainability Reporting – GRI's Year in Review 2010/2011." 2010 (pages 2-11).
- Walmart, Inc., "2012 Global Responsibility Report". 2012 (pages 68-100 and 106-113).
- Oxfam. "Value Chain Climate Resilience: A Guide to Managing Climate Impacts in Companies and Communities." 2012 (Executive Summary and pages 3-12).
- Dow Jones Sustainability Indexes website - <http://www.sustainability-index.com/default.html>

Supplemental Readings:

- Starbucks, "Starbucks Global Responsibility Report – Goals and Progress 2011." 2011.
- Whole Foods Market, "Green Mission Report 2012." 2012.
- LEGO, "Progress Report 2011." 2011.
- Walmart Sustainability Index - <http://walmartstores.com/sustainability/9292.aspx>
- Bloomberg LP, "The Sustainability Edge: Sustainability Update 2011." 2011.
- Ernst & Young, "Six Growing Trends in Corporate Sustainability." In cooperation with GreenBiz Group, 2012.
- KPMG International, "Corporate Sustainability: A Progress Report." In cooperation with the Economist Intelligence Unit, 2011.

- Hubbard, Graham, "Unsustainable Reporting." University of Adelaide, 2009.

Grading and Assignments

10% - Attendance and Class Participation

15% - Short Paper (1-2 pages)

20% - Data Analysis Paper (2-3 pages)

25% - Indicators Report (4-5 pages)

30% - Final Assignment (5-7 pages)

Participation is very important and will represent 10% of your grade. All students are expected to contribute to the classroom discussion throughout the course. On-time attendance at each class meeting is expected. Partial attendance, i.e. lateness or early departure, if not excused in advance, will impact the "Participation" component of the course grade. If you need to miss a class for any reason, please email the instructors in advance.

Papers and Reports are due by the beginning of class on the date that they are due. All assignments must be handed in on time. Any late submission will receive an automatic reduction of one letter grade.

Short Paper

This assignment is a 500-1,000-word paper proposing one new sustainability indicator for the City of New York. The PlaNYC Update released in April 2011 includes a list of 29 sustainability indicators across 10 chapters (such as transportation, air quality, climate change, etc.).

In 500 to 1,000 words, provide a brief critique of the existing PlaNYC sustainability indicators and propose one new indicator for an existing chapter. You may also propose a new indicator in a topic area that is not a chapter of PlaNYC. For your proposed indicator, explain why it is important to track this metric and why this indicator is filling a gap that is not currently covered.

Once you have described what indicator and topic area you are proposing and why, propose a target for 2030. An existing example from PlaNYC would be in the chapter/topic of "transportation" to have an indicator of "% of roads meeting a state of good repair" with a 2030 target of "100%." The best papers will select a meaningful sustainability indicator that measures a topic effectively while also providing an ambitious yet achievable 2030 target. Successful papers will also explain where data for your chosen indicator might be found and how it might best be tracked.

For the current version of PlaNYC Sustainability Indicators, please review the PlaNYC April 2011 Update: <http://www.nyc.gov/planyc>

Data Analysis Paper

This assignment is a 1,000-1,500-word paper analyzing a quantitative fact pattern on an assigned environmental sustainability topic. Graphs, tables, maps and/or other analytic tools should be used as appropriate to support and illustrate findings. Additional instructions regarding this assignment will be distributed during the course

Indicators Report

This assignment is a 2,000-2,500-word paper proposing a set of sustainability indicators for a city or company of their choice. Students should identify between 5 to 10 indicators to track, explain why the indicators were chosen, and briefly discuss trends that can be seen from existing data. Graphs, tables, maps, and/or other analytic tools should be used as appropriate to support and illustrate findings. Data should be collected from a variety of primary sources, including but not limited to the Census (for US cities), municipal reports, NGO datasets, annual reports and financial statements (for corporations, and supplemental readings identified in this course. Additional instructions regarding this assignment will be distributed during the course

Final Assignment The final assignment is a 2,500-3,500-word paper analyzing and advocating a position on a complex environmental issue, such as the closure of Indian Point, hydrofracking, waste conversion, or the banning of plastic bags. Additional instructions regarding this assignment will be distributed during the course

Policies

Academic Integrity

The School of Continuing Education does not tolerate cheating and/or plagiarism in any form. Those students who violate the Code of Academic and Professional Conduct will be subject to the Dean's Disciplinary Procedures. The Code of Academic and Professional Conduct can be viewed online: <http://ce.columbia.edu/node/217>

All work must be your own. The use of any research or external source must be cited and documented appropriately. The School provides some useful resources online; we strongly encourage you to familiarize yourself with these various styles before conducting your research:

<http://library.columbia.edu/help/howto/endnote.html>

Violations of the Code of Academic and Professional Conduct will be reported to the Associate Dean for Student Affairs.

Accessibility Statement

Columbia is committed to providing equal access to qualified students with documented disabilities. A student's disability status and reasonable accommodations are individually determined based upon disability documentation

and related information gathered through the intake process. For more information regarding this service, please visit the University's Health Services website: <http://health.columbia.edu/services/ods/support>