

Executive Summary

In its self-study for the decennial Middle States Commission on Higher Education re-accreditation, New York University has chosen to focus on multischool, interdisciplinary programs that exist outside or alongside the school and department structure of the University. Such programs have propelled many of the recent major initiatives at NYU, and several are being developed as University priorities. This trend is of special significance for a historically school-centric university – presenting both opportunities and challenges – and so warrants examination. The four areas on which the self-study focuses are public health, cities and the urban environment, humanities and the arts, and data science. Working groups were formed in each of these areas to explore organizational structure, leadership and governance, faculty, finances, the student community, the curriculum, the University administration, support services, and assessment procedures. In addition, information has been collected for this report from other multidisciplinary centers at NYU: the Center for Genomics and Systems Biology, the Center for Neural Science, the Neuroscience Institute, and the Media and Games Network (MAGNET).

Public Health

There is a growing recognition of the importance of advancing public health as a fundamental building block of prosperous, stable, and just societies. And universities – through their key missions of research, education, and service – can play a critical role in that effort. Improving the state of the nation’s and world’s health requires professionals and experts from across the spectrum: physicians, nurses, dentists, psychologists, social workers, policymakers, managers, engineers, and sociologists. After several years of consultation with deans and faculty, NYU was ready in 2012 to launch the Global Institute of Public Health (GIPH), which draws on the scholarship and clinical work of 11 schools. GIPH includes doctoral, master’s, and undergraduate degree programs. Ten undergraduate majors combining public health with another field provide interdisciplinary education for students entering the workforce or going onto graduate school. The master’s program prepares students to become public health researchers and practitioners. The doctoral program specializes in the biological bases of public health, health systems and services research, population and community health, and sociobehavioral health. A goal of the Institute’s new dean is to evaluate how current cross-school faculty align with research areas, such as chronic disease, infectious disease, and public health and community practice.

The Council on Education for Public Health, on an accreditation site visit to NYU in 2010, commented favorably on the resources that have been committed to public health, the smoothness of the collaborative relationship among units, and the mentoring of students, postdocs, and junior faculty. Challenges remain, including the still-strong pull toward school-

based programs and faculty as the norm; the dispersal of faculty and students over several geographic sites; the potential for conflicting policies and procedures in student and faculty affairs, and financial planning. And with an institute the breadth and scope of GIPH, there is a pressing need for ongoing communication among all participants.

Cities and the Urban Environment

For the first time in history, more than half the world's population lives in cities. By 2050, seven out of 10 people will. The world's anticipated population growth in the next few decades, from 7 billion to 9 billion, will take place largely in cities in the developing world. While urbanization has the potential to reduce poverty and promote economic development, if done too fast or without proper planning for infrastructure or human needs, it presents grave threats to the environment and quality of life. The physical, social, political, and economic forces that shape the well-being of urban residents are complex, and they demand multifaceted solutions. As a university that was founded to be "in and of the city" and makes its home in New York City, NYU is well positioned to study urban issues. It has scholars in a wide range of disciplines crucial to understanding cities: applied sciences and technology, sociology, economics, law, history, environmental sustainability, and policy and planning.

Currently, NYU has four relevant multidisciplinary undergraduate programs focused on cities and aspects of urbanization, three in the College of Arts and Sciences and one in the School of Engineering – which together enroll 300 majors. In addition, there are departments in several other schools and at NYU's global sites, which provide opportunities to study cities. Several schools, such as the Wagner Graduate School of Public Service and the Graduate School of Arts and Science, offer related master's degrees. There are a large number of active centers at the University, housed in different schools, through which faculty conduct research on urban problems, including transportation, land use, housing, culture, education, poverty, climate change, and urban growth. One of the newest is the Center for Urban Science and Progress (CUSP), which aims to collect, link, and analyze large data sets to improve urban efficiency. The University has recently launched the Marron Institute on Cities and the Urban Environment, which will span the entire University and serve as an umbrella institute for many of NYU's centers in this area. These programs are aided by a vigorous faculty, the potential for connection with an array of cities in which NYU has a study abroad presence, and a vibrant student community.

Here, too, challenges remain: some fragmentation and lack of coordination of curriculum and research, faculty allegiance to multiple departments, still-developing undergraduate programs, insufficient use of NYU's global network, and vestigial administrative barriers to multischool classes and research.

Humanities and the Arts

Since 2005, NYU has created more than 100 new positions in humanities in the Faculty of Arts and Science. The field has also grown in the Gallatin School of Individualized Study, the Liberal Studies Program, the Steinhardt School of Culture, Education, and Human Development, and the Institute for the Study of the Ancient World. Humanities and the arts are also embedded in less obvious venues, including the School of Law, the Robert F. Wagner Graduate School of Public Service, and the School of Medicine. Finally, the Tisch School of the Arts and the Institute of Fine Arts are, respectively, among the most highly regarded programs for the performing arts and art history. These are unsettling times for the humanities, as reflected in a spate of recent reports. Since the 1960s there has been a decline in the number of postsecondary degrees in the field, government support for less-commonly taught languages has been cut drastically, and the job market for graduate students in the humanities has rarely been worse. In this climate, the most competitive students seek to be conversant with more than one field in their disciplines, and NYU has been at the forefront of articulating and creating interdisciplinary connections in the humanities and arts.

In addition to the programs located in separate schools, many humanities centers exist outside the purview of a single school. This self-study concentrates on five that share common goals but differ with respect to funding, personnel, longevity, and interactions within and beyond the University.

- The Hemispheric Institute of Performance and Politics, based in the Tisch School of the Arts, has extensive contacts with over 45 institutions in the Americas as it operates a performance archive and network aimed at exploring, teaching, and enabling performance in the Western Hemisphere. The network also provides work-study and internship positions, which benefit skills training and create a supportive community for students and alumni.
- The goal of the Humanities Initiative at NYU is to mobilize “the talents and energies of our faculty and students across the University to provide a forum for cross-disciplinary discussion and collaboration in the humanities and arts.” It funds research groups, conferences, and workshops, and it partners with libraries and other humanities centers in New York State.
- The Remarque Institute, founded by the esteemed late professor Tony Judt, has become a leading interdisciplinary center for scholarship in European studies, including history, literature, politics, sociology, law, and journalism. It sponsors fellowships, lectures, and a monthly European history seminar for graduate students.
- The NYU Abu Dhabi Institute includes an outreach program designed to bring together Emirati, expatriates, and others for talks, concerts, and ongoing research. It has a conference and workshop program geared to issues that focus on Abu Dhabi and the Gulf as places of transition and geographic, economic, and cultural

intersections. And it funds large-scale research projects in the sciences, social sciences, and humanities.

- The University's digital humanities projects are engaged in the creation and use of technological methods to investigate humanities scholarship.

Taken as a group, these humanities initiatives at NYU constitute a unique assemblage, allowing a broad range of teaching, research, and collaborative projects that have national and global reach. The primary challenge for these programs consists of the three Cs – collaboration, continuity, and connectivity – as ways of enhancing a fourth C, creativity. They have common needs: adequate space, staff, and oversight. They also have the challenge of maintaining strong relations across NYU's global network to strengthen their offerings and disperse their benefits more widely. Finally, integrating undergraduates into these programs will establish strong humanistic foundations for students at the start of their studies.

Data Science

Our networked world is generating a deluge of data that no human, or group of humans, can process fast enough. Much of the new data is unstructured and is captured from the real world through a variety of means: sensors from scientific experiments, pictures and videos from the Web, location data from smartphones, link and click data from social networks, customer data from e-commerce, text from news sources, blogs and collaborative filtering websites, and more. Data science is on the cusp of revolutionizing all areas of intellectual endeavor and is becoming a necessary tool to answer some of the big scientific and technological challenges of our time. NYU has a strong presence in data science, particularly in deep learning, information visualization and visual analytics, data management, provenance and reproducibility, large-scale computation, and mathematical statistics and probability.

In 2012, NYU established a Center for Data Science to serve as a major research and education center, bringing together many of these competencies. The University also has five other data science–related graduate programs, with a sixth to start in fall 2014. In addition, many NYU research centers and departments have significant activity in the field, including the Center for Genomics and Systems Biology, the Center for Social and Political Behavior, the Computational Intelligence, Learning, Vision, and Robotics Lab; and the Division of Biostatistics at the NYU Langone Medical Center. Two principal purposes of these activities are to bring together faculty with significant research activities in data science who are currently scattered at the University. These activities are linked closely with NYU's global network, especially the Abu Dhabi and Shanghai campuses. These projects require substantial resources, including classroom and faculty space and equipment. As is common with interdisciplinary efforts, junior faculty are often concerned about the effect of their participation on promotion and tenure in their home departments. Another challenge is to

find a flexible University-wide approach to obtaining corporate sponsorship. Nevertheless, there are many opportunities to develop new NYU strengths in this area and for the University to become a leader in the field.

Overall Strengths and Challenges

As stressed throughout this report, interdisciplinary work has enormous potential for intellectual innovation and the solution of complex problems, such as rapid urbanization of the world's population, challenges in national and international economic development, public health threats, and political instability. As an urban university with an increasingly global identity and departmental strengths across a wide range of natural and social sciences and the humanities, NYU is well positioned to capitalize on interdisciplinary initiatives. Because some departments have little in the way of process for managing faculty hiring, promotion, and tenure, it is sometimes necessary to introduce new procedures. Similarly, despite increasing cooperation among faculty in different fields, there is a continuing need for oversight to assure that programs are coordinated and duplication is avoided. To be successful, interdisciplinary endeavors require significant investment of time and money and the steady development of information technology.

Multischool collaboration provides students with an opportunity to explore different epistemological traditions and to capitalize on new methodologies, technologies, and forms of analysis. An interdisciplinary focus also helps the Washington Square campus work more closely with NYU's study abroad sites. Experience in low- and middle- income countries assists students in understanding the varied nature of local problems throughout the world. Nevertheless, with multidisciplinary approaches come theoretical and pragmatic challenges. The lack of an historical anchor for some of the innovative work can be taxing for students, and the bounds of interdisciplinary topics can be more diffuse, or less easily articulated, than ideal to shape research and pedagogical aims.

This self-study makes recommendations for strengthening interdisciplinary programs and tackling the significant administrative, fiscal, operational, and above all, academic challenges they face.

The self-study covers portions of Middle State's Standards 5, 7, 9, 10, and 11. The document review addressed other portions of those Standards, as well as all of Standards 1-4, 6, 8, and 12-14.