

INFORMATION SHEET #3
LEHMAN AS ENGINE OF OPPORTUNITY FOR STUDENTS

QUESTIONS CONSIDERED: What opportunities are provided for mentorship, internships, and clinical practice at Lehman and in the field? What strategies have programs developed to streamline paths to graduation and transitions/next steps? What new strategies are possible going forward? What concerns persist?

PROMISING STRATEGIES (ongoing):

Community college pathway:

- Six programs mention articulation agreements or pathways from various community colleges to their majors. Five of those programs are working to finalize at least one of those agreements and seek to develop those relationships further. Programs cite the value of establishing such pathways in order “to coordinate basic requirements and allow students to finish their major courses and take more advanced electives without significantly delaying their graduation.”
- A summer enrichment program offered by *Biology*, the Bronx STEM Scholars Program, brings “promising community college students from both Bronx feeder schools to Lehman in the summer to do research and participate in a weekly seminar,” thus preparing them for the demands of the major. “They receive a stipend for the summer work to help offset their financial burdens.”

New collaborations across disciplines to improve student experience, preparation, outcomes. To illustrate:

- The *English* department provides writing courses for Business, Sociology, Speech-Hearing-Language Sciences, and Political Science to enable students to master the skills, genres, and rhetorical moves of those disciplines. Similarly, the *Philosophy* department provides students in Business and other programs with a professional ethics component.
- In order to make *Economics* majors more job-ready, the department has collaborated with *Mathematics and Computer Science* on two programs. A joint major degree in economics and mathematics will focus on applied quantitative skills (statistics, econometrics, computer languages). A new Masters in Applied Economics, a joint degree program of Economics and Computer Science, will guide students in the programming required for economics modeling. One additional aim of these programs is to provide a mechanism to attract students to Economics who may be looking for an applied STEM field.
- New joint offerings between *Digital Media* and *JCT* offer students film and TV courses and experience. Further, the Digital Media report cites “major curriculum changes [that] will provide a core of professional education shared by Art and Math/Computer Science.”

Program innovations and modifications. These consider students’ work-life-school balance, reduce obstacles to student success, deepen preparation, and seek to increase students’ competitiveness in the job market.

- **Changes in scheduling to meet needs of transfer and working students.** The majority of

programs report that they offer at least one online course; four programs are exploring the feasibility of fully online certificates or degree programs. *Health Education & Promotion*, as well as many other programs, offers more courses in non-work hours: evenings and weekends, as well as online. *Biology* now offers more sections of introductory courses to meet the needs of transfer students.

- **Accelerated and combined undergrad/grad programs.** These programs reduce time to get a graduate degree for those students with solid academic preparation and a good GPA. They have the added benefit of providing more time at Lehman for transfer students. *Early Childhood and Childhood Education* initiated a Minor to Masters Program focused on Lehman undergrads with the career goal of becoming teachers. By having a five-year BA/MS program, *Biology* can offer students research experience at both the undergraduate and graduate level, something “many companies that hire our students require. We can capture high quality students and provide them with an educational experience that will aid them in obtaining a career after graduation.”
- **Refreshed programs with new or updated courses, some to meet professional or academic society standards that then enable students to compete more effectively for jobs or graduate programs.** Some illustrations:
 - *Chemistry* redesigned its BS with a Biochemistry specialization to meet the new American Chemical Society standards and thus better serve those students who are planning to go to medical school and graduate school.
 - *GISc* increased its emphasis on providing “sufficient specialty (technical) coursework to enable students to successfully compete in the job market.”
 - New courses and concentrations blend the humanities with a career focus: music therapy, the LALPS minor in Latin American Business.
 - *Health Education & Promotion* introduced a grant writing course, which it projects will make students more employable in nonprofit health organizations.
 - Six programs mention guiding student to develop “career portfolios” or exit e-portfolios that can be shared with potential employers.
- **Multiple tracks to graduation.** Ten programs describe multiple tracks to graduation. And one program, Economics, reverted to a “more traditional” program, moving away from tracks, which then enabled the program to have faculty available to offer “more interesting electives.”

Internships and research experience. Forty-one programs (51%) describe field placements, internships, and/or service learning, which provide students with opportunities to enact job-related skills and competencies. 28 programs (37.5%) mention involving students in research or research assistance to faculty in order to “deepen students’ understanding and improve their opportunities for graduate study.” Students learn to “collect, analyze, and communicate about information -- necessary skills for the modern citizen.” To illustrate:

- *Geography* majors are invited to participate as undergraduate Research Fellows of the Lehman College USDA and NOAA-CREST grants. Students have worked on locally important research studies such as one examining the connections between asthma and air pollution. Some of these positions have come with stipends and/or funded conference travel, internships, and mentoring.
- The *Digital Media* program is part of the Macaulay/Hostos/Lehman Partnership for a New Media

Jobs Incubator and Innovation Lab. Students will have the opportunity to be part of entrepreneurial research and development teams; graduates will be “prepared for careers in media production.”

- *G/Sc* partnerships permit student interns “to experience working with professionals in the field, and contributing to solving complex urban, environmental, and health problems” through work with a diverse set of partners from industry as well as nonprofit environmental, health, cultural, and community planning groups.
- Mainly without grant funds, programs such as *Health Education & Promotion* place students as interns in Bronx and NYC not-for-profit organizations. *Earth Science* matches “student researchers with mentors at Lehman, the American Museum of Natural History, and other research institutes.”

Advisement and post-college planning

- Programs keep track of student progress and achievement through “intensified and customized program advising.” In *Speech-Language-Hearing Sciences*, students at risk are assigned to a faculty member who works with that student to develop a remediation plan; one aspect of those plans is course reduction in the next semester to assure successful repeat of the course in question. *Geography* utilizes graduate student “peer ambassadors” who perform informal “role model” duties, mentoring undergrads.
- *Political Science* assists students to leverage their “socio-economic data for admission to graduate and professional programs,” though faculty stress that “reading, writing, and numerical and statistical literacy as well as competence in research capabilities and professionally oriented experiential training such as internships still remain the keys to their success.”
- *SYI* and the *Center for School College Collaboratives* run career workshops and courses.
- Multiple programs have developed prep or peer-prep clubs or online modules for certification/qualifying exams so students are better positioned to qualify for the careers they trained to enter.

PROMISING NEW STRATEGIES:

Foster additional interdisciplinary collaborations to enrich student experience and preparation.

- *Health Services Administration*: master’s program co-taught with Nursing and Business.
- *History*: collaborations with Economics (history of business) or Health Sciences (history of food).
- *Speech-Language-Hearing Sciences*: teaching and Interdisciplinary course offerings with the School of Health Sciences, Health Services and with Nursing.
- *Spanish*: interdisciplinary courses for health sciences and business.
- *LALPRS*: interdisciplinary courses with science and business programs “in light of STEM initiatives that may require a foothold in Latin America.”
- *Philosophy*: additional and diversified ethics courses for majors (business ethics, medical ethics).
- *Sociology*: Collaborate with sociologists in other departments on research and curriculum, leading to the development of an MA program with health and education concentrations.

- *Nutrition*: Explore the viability of offering different concentrations through collaboration with other programs within the Health Sciences Department (e.g., collaborating with the Exercise Program to offer an MS in Nutrition with a concentration in Sports Nutrition).
- Increase the number of joint faculty appointments.

Develop programs to respond to students' time demands and create new opportunities for employment.

- *Counselor Education*: Add Mental Health bridge program.
- *Mathematics*: Initiate program in applied mathematics.
- *Biology*: Develop a Weekend MA College that would “allow students to attend weekend intensive programs similar to what is used for executive training programs and MBA programs.”
- *Exercise Science*: Prepare students for application to the American College of Sports Medicine (ACSM) Exercise Health Fitness Instructor Certification, thus increasing their opportunities in the career market.
- *Dietetics, Food, & Nutrition*: Develop a Culinary Nutrition option and “connections with the Zoo and Garden” that will allow students “to take advantage of new opportunities for scholarship and (non-clinical) careers... and add to the attractiveness” of the program option that does not lead to becoming a Registered Dietitian.
- *Sociology*: Leverage collaboration with Macaulay/Lehman Scholars Program to build a stronger honors track.

Increase internship and research experiences for students

- *Computer Science*: create opportunities for research and development through entrepreneurial ventures involving faculty and students: “Courses have already been offered covering smartphone/tablet programming. A skilled team of programmers can easily produce and market such products to a large audience.”
- *LALPRS*: “connect with cultural heritage organizations in the Bronx to create (credit-bearing) internship opportunities for our majors.”
- *Sociology*: Pursue partnerships with outside organizations that take advantage of NYC’s “major role in social research” and can help students develop research and other employment skills.
- *Nursing* notes a challenge in developing sufficient clinical sites and experienced preceptors. They are impacted by a shortage of primary health care professionals in the Bronx, requiring the program to reach beyond traditional nurse preceptors to find “willing physician colleagues to serve as preceptors along with the nurse practitioners servicing these areas.”

DILEMMAS:

Progress to graduation and quality of program. Programs express concern about providing sufficient time options, numbers of sections, and course variety to enable students to fulfill a course of study and progress to graduation in a timely way. At the same time, there is concern that offering full courses in Winter Session or in an abbreviated Summer Session limits their depth and quality. Is Winter Session a legitimate way to offer a full course or are there other ways to provide credit-bearing experiences in an

abbreviated session? How would additional faculty lines ameliorate the problems of program depth and sufficient numbers of sections?

Multiple program tracks. A number of programs offer parallel tracks targeted to interests and career goals, but some have developed tracks specifically for “weaker” students who are unlikely to qualify for certification. For this second group of students, some programs have developed (or are working on) specific, achievable career paths, but others are less clear about what graduation will mean for this second track. What can other programs learn from those programs that have developed a pragmatic second pathway with its own integrity and expectations?

Investing in student internships and research. The opportunities for research and internships described above represent both ends of the resource spectrum: some are well-funded efforts sponsored by government and industry grants, but in other programs, students must meet their requirements for internships and research without such support. What strategies can Lehman develop to assure that all students have funding for these essential experiences?

Investing in program accreditation. At least five programs aspire to attaining accreditation from New York State or national professional organizations. Doing so would improve the employment prospects of students who graduate from those programs. What upgrades in courses, programs of study, and areas of faculty expertise are required to make accreditation a reality?