

CORPORATIONS on CAMPUS

University of Delaware and Syracuse University work together with JPMorgan Chase in a model of industry-academic collaboration designed to live up to its full potential.

BY BRUCE WEBER, JEFFREY SALTZ, AND BOB HECKMAN

Business schools rely on many time-tested mechanisms to expose students to corporate realities. They bring in guest speakers, facilitate internships, and invite business leaders to sit on advisory committees. But while these methods are valuable ways to introduce students to real-world situations, they're often too limited in scope to create a deeply integrated relationship between the university and the firm.

We believe that forward-thinking universities can realize much more potential from their corporate collaborations. That was the goal when the University of Delaware (UD) in Newark and Syracuse University (SU) in New York established academic-industry collaborations with JPMorgan Chase (JPMC), headquartered in New York City. We wanted to make sure we left no potential advantage on the table, for students, faculty, or the company. So, we asked four key questions:



- Could a university draw a global company to its campus not just for occasional visits, but as an ongoing presence?
- Would a global company agree to provide opportunities on campus for students to become actual employees, doing real work for the company?
- What would make JPMC, a leading global bank with \$2.3 trillion in assets, willing to place itself at the heart of the campuses of not just one, but *two* major universities?
- And, finally, how could JPMC and those two universities structure such a close-knit, sustainable, and mutually beneficial relationship?

The answer to the first question is a resounding “Yes.” We discovered the answers to the rest through ongoing discussion, negotiation, and—not surprisingly—a great deal of planning.

Here, we share the steps we took to forge a multifaceted, mutually advantageous relationship between industry and academia—and the lessons we learned along the way.

Audacious Goals

In 2007, JPMorgan Chase reached out to several universities to explore the possibility of creating an enhanced educational program to improve technology education for undergraduate students. SU became its first counterpart in this effort, establishing a long-term relationship with JPMC of no less than 10 years to include joint activities in research, curriculum design, and internships. We set out to transform the way students are educated so we could better prepare them for



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Cutting the ribbon to officially open the JPMorgan Chase Innovation Center at UD are (from left) Bruce Weber, dean of the Lerner College of Business and Economics; UD President Patrick Harker; U.S. Sen. Chris Coons; Kevin Heithaus, a senior Honors Program student who spoke about his experience with the program; Kristi Kiick, deputy dean of the College of Engineering; and Guy Chiarello, JPMorgan Chase chief information officer.

technology careers in global organizations. In 2009, JPMC and UD agreed on a similar model.

JPMC’s vision for the collaboration that was much more extensive than traditional collaborations between academia and industry. The company had three ambitious goals:

- To transform the way technologists are educated in the classroom and on the job.
- To drive innovation in university education and financial services technology.
- To create a sustainable model for world-class university-industry collaboration.

For that to happen, our faculty at both schools knew that we had to diverge from tradition. We knew our collaboration must:

- Be set up as a long-term strategic relationship.
- Be a full collaboration, not simply based on a sponsorship, endowment, or charitable gift.
- Depend on JPMC having a physical presence on campus, not

just connecting to the university through visits or phone calls.

- Involve curricular integration across courses and programs, not just in a single course.
- Involve the creation of “immersive learning experiences” for students, not just on updates of existing course assignments.
- Generate applied research focused on areas of mutual interest, not just “directed research” or “gifts” to the university.

Such an involved collaboration works best when each party is engaged and motivated. They should expect future benefits, but still be held accountable for outcomes. In our case, activities at each university are supported by JPMC’s long-term commitment to supply more than US\$35 million in funding for joint activities. As a testament to JPMC’s belief in the long-term value of this collaboration, our effort has been maintained and even enhanced through the challenging economic times faced by JPMorgan Chase and the financial services sector since 2008.

Our Model in Action

More than 40 faculty members from universities have been significantly involved in the collaboration's direction and execution. These faculty come from UD's Lerner College of Business & Economics and the College of Engineering, and SU's Martin J. Whitman School of Management, L.C. Smith College of Engineering and Computer Science, and the School of Information Studies.

We use a monthly scorecard that tracks six initiatives against four categories: objectives, deliverables, messages, and metrics. Faculty from both schools and JPMC are in constant communication regarding the efforts of all parties, including deliverables expected and milestones achieved. We have multiple points of contact, and frequent "touches" are encouraged and monitored. We also hold monthly meetings to discuss the scorecard. This regular communication and face-to-face contact ensures that the collaboration runs smoothly and stays on track, despite the ebb and flow of academic calendars and business demands.



Inside the JPMC Innovation Center at UD.

EVAN KRAPE, UNIVERSITY OF DELAWARE

Getting the Relationship Right

Ensuring the success of industry-academic collaborations is the mission of the University-Industry Demonstration Partnership (UIDP), part of the National Academies in Washington, D.C. Its membership includes close to 80 universities and corporations, whose representatives meet regularly to discuss best collaboration and partnership practices.

In its report "Guiding Principles," the organization outlines three approaches that are fundamental when it comes to laying the framework for a successful industry-academic relationship. UIDP holds that the two parties should:

- **Support the mission of each partner.** Universities and companies have very different ambitions: Universities want to generate and share knowledge, while companies want to sell products or services to make a profit. The most successful agreements support both academic and commercial objectives.
- **Foster a long-term relationship.** Even short-term transactions should enhance the ongoing relationship.
- **Streamline terms of negotiation.** When the negotiating terms are simplified, both parties can devote more energy to the spirit of collaboration and engagement.

These principles may seem simple, but they can be challenging to follow given the different priorities of executives and academics, says Anthony Boccanfuso, UIDP's executive director. For instance, when it comes to setting a timeline for adopting change, a single financial quarter might be too slow for a corporation, while five years might be too fast for university. Compromise is crucial to make the relationship a success.

Boccanfuso adds this advice to make lasting, mutually beneficial connections:

- **Pursue deeper relationships with fewer parties.** "It's better to have fewer involved relationships than it is to have a larger number of shallower relationships," he says. The latter are often sponsorships, not collaborations.
- **Designate people at each organization to serve as ambassadors.** These are individuals who will connect both organizations to the appropriate people and resources. However, he makes a distinction between "ambassadors" who establish multiple points of contact in the relationship, and "gatekeepers" who serve as the only points of contact. "Gatekeepers don't necessarily bring other people into the conversation," he warns. "If a gatekeeper leaves the organization, the relationship could be lost."
- **Underpromise and overdeliver.** Universities and corporations use different metrics to measure success. That difference can lead to a mismatch of expectations. "Never discount the importance of managing expectations up front," he says.

As challenging as these relationships can be, they can deliver big benefits, Boccanfuso says. "Universities are increasingly being asked to contribute to economic development and quantify their impact in tangible ways. How many jobs are they creating? How are they helping businesses in their regions? Formal, ongoing partnerships between academia and industry promote that part of the university's mission, while helping companies achieve their goals."

"Guiding Principles" is available at www.uidp.org under "Publications."

Faculty members at both schools collaborate with JPMC technologists on an ongoing basis to develop materials and support delivery of multiple courses. One of our joint goals was to create professionally designed curricula relevant to current practice in the field. New and updated syllabi and assignments were reviewed by JPMC employees who volunteer to help improve specific courses and programs.

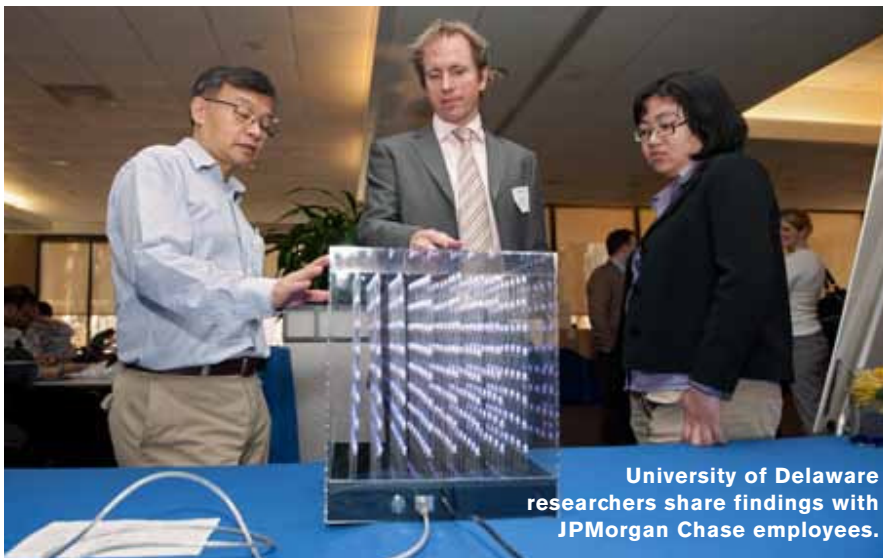
In addition, UD and SU faculty have asked for direct involvement of senior executives. In response,

for the firm's IT employees, as well as the embodiment of our new collaboration model.

The JPMC Technology Center @ SU is located on the first two floors of Lyman Hall, an academic building in the middle of SU's campus. It provides a focal point of interaction among several academic functions, including research, curriculum, internships, and community engagement. The center houses approximately 100 JPMC employees, who provide domain knowledge for potential research projects and aca-

drive of the UD campus, so they can easily come to campus for different aspects of the curriculum.

Each space has JPMC's network infrastructure. That simplifies logistics, such as researcher access to systems and confidential company data. Because the centers are part of JPMC's internal network, students can work as interns and get on-the-job training in a Fortune 100 company environment without leaving campus. The centers also provide work areas for JPMC employees who are performing their normal roles within the company. Their presence puts a face on the collaboration.



University of Delaware researchers share findings with JPMorgan Chase employees.

EVAN KRAPE, UNIVERSITY OF DELAWARE

speakers such as Guy Chiarello, JPMC's chief information officer, have visited both universities and spoken to students and faculty about how the bank develops systems and manages its multi-billion dollar annual IT budget.

On-Campus Presence

JPMC has established physical presences on the campuses of both UD and SU. Each of these spaces is a fully functioning JPMC office

domic courses. In addition, the center provides academic year internships for over 70 SU students.

The JPMC Innovation Center @ UD is housed in Purnell Hall, within the Lerner College of Business & Economics. Just as with SU, the center serves as a focal point of interaction between JPMC and the UD community. The center has the desk capacity for 15 JPMC employees. In addition, several thousand JPMC employees are within a 15-minute

The GET Curriculum

Our collaboration has specifically focused on the development of a new domain known as Global Enterprise Technology. These large, complex information systems—or GET systems—often require hardware and software architectures that are fundamentally different from smaller business applications. According to many corporate employers, the majority of today's college graduates are not prepared to work effectively in multifaceted, large-scale integrated work environments. Furthermore, many global organizations develop and run GET systems via virtual teams with colleagues working across geographies and time zones.

Through the JPMC collaboration, we have developed our GET curriculum, which includes more than 25 courses. This curriculum includes:

The GET Minor. The GET undergraduate minor was designed to provide SU and UD students with knowledge and skills that address the IT challenges presented by the global environment. The interdis-



UD-JPMC
student
interns,
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ciplinary coursework draws upon information studies, management, and computer science. The curriculum emphasizes student engagement through real-world case studies, team projects, and guest lecturers from a variety of industries.

Students from all majors are eligible to apply. At UD, 80 students were working toward earning the minor within two years of its launch. At SU, where the minor has been available for three years, more than 200 students are enrolled in the GET Minor.

The GET Immersion Experience (IE) Extended Internships. Undergraduate students have the opportunity to complete eight-month paid internships while enrolled as full-time students. As GET IE interns, they complete intensive residencies and online integrated coursework that enables them to stay on track to graduate in four years. Internships are offered by JPMC, as well as companies such as CISCO, Ernst & Young, GE, IBM, Nationwide Insurance, and Bloomberg. Students from other schools such as Rutgers University and The Ohio State University join Delaware and Syracuse students in the program.

Together, we have tried to address the shortcomings of traditional professional curricula. For example, one GET course focuses on IT innovation. GET interns learn how to improve IT processes; then, they look at a problem they

see in the work environment, create a proposal, and explore how to change it from a technical, financial and management perspective. Because the GET IE interns have been hired for eight months, they have time to work on relevant business challenges in areas such as quality assurance, risk management, and software development.

Research in Practice

We also needed to address the traditional divide between research and practice. Generally, faculty are free to pursue and publish long-term research efforts, but that research isn't always easily applied in practice. Industry-sponsored research, on the other hand, focuses on practical outcomes, but often prohibits faculty from discussing, let alone publishing, results.

In our collaborative model, we blend the best of the two approaches. We identify potential research projects via active discussions between faculty and JPMC technologists. Faculty gain access to real problems and data, explore potential solutions with industry experts, gain insight into corporate culture, and better understand how projects are analyzed within a corporate environment. At the same time, they also are able to publish generalizable results, while still maintaining confidentiality as appropriate.

For example, faculty are invited to give seminars to JPMC employees. These sessions enable employees to

better understand emerging research trends and faculty to better understand problems the industry faces. These interactions also encourage brainstorming for future projects.

This structure has led to several innovative technology research projects at each of the universities. Faculty have published papers on topics ranging from social network analysis to credential interoperability requirements within wholesale banking. Professors also take their research efforts into the classrooms, where they impact undergraduate curriculum content and engage faculty and graduate students in real-world applied research.

Faculty members like Mark Serva, associate professor of management information systems at the University of Delaware, appreciate the diverse experiences this collaboration has made possible. "I have worked on curriculum, applied research, and the Immersion Experience, where I have the opportunity to work with students and faculty from several other universities," he says. "The integration of these activities is a unique characteristic of this collaboration, and it's very satisfying."

Emphasis on Work-Based Learning

Work-based learning internship opportunities are key components of our collaboration—they allow us to observe the results of our curricular enhancements. Due to their deep relationship with JPMC, faculty can easily observe student internships, interact with intern supervisors, and ensure course material is relevant and applicable to business.

Three types of internship opportunities have been created:

- *Academic year internships* that allow students to do real work on a part-time basis at the on-campus centers.
- *GET IE*, in which students work for eight months while also taking courses specifically designed to leverage their work context.
- *Traditional ten-week summer internships* at various JPMC locations.

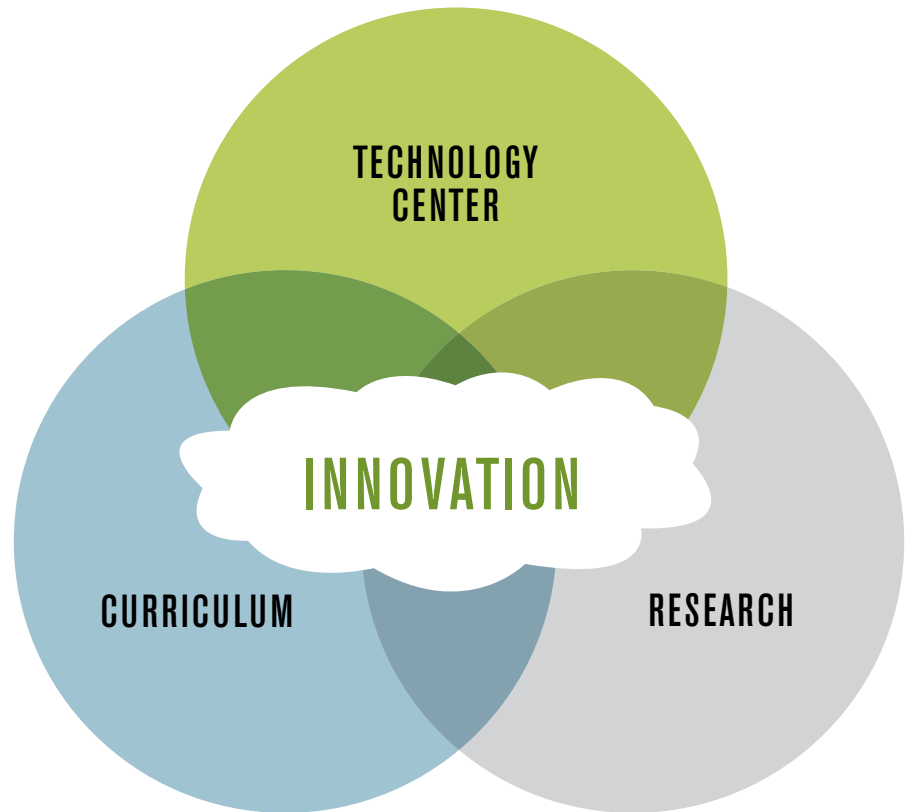
Students, faculty, and JPMC all gain from this model of collaboration. Melvin T. Stith, dean of the Whitman School of Management, notes, “Students gain because experiential learning increases motivation and links theory to practice. Faculty gain through access to more interesting research projects and more interesting courses.” And Guy Chiarello, JPMC chief information officer, sums up the benefits to the company: “We get tangible results from applied research projects, and we also see an improved talent pipeline.”

True Collaboration

We believe the JPMC-SU-UD relationship framework works better than the transactional model typical of most university-industry collaborations. In our model, each side invests the time to understand the other’s culture, talents, and potential contributions to the collaboration.

The long-term relationship model has also provided synergy across efforts. For example, by leveraging the on-campus center to support the curriculum, we have been able to bring the real world into the classroom, improve courses, generate new courses, and inspire new research projects.

Of course, there will always be differences between how academia



and industry operate. Without care and structure, there is a danger that administrators and faculty can take too limited an approach to outreach. Or, similarly, companies can ask faculty for work products that are not aligned with their goals, interests, or strengths.

But when these collaborations are structured well, neither side forces the other into a position where it must abandon a core principle—it’s just not part of the agreement. For example, JPMC leaders recognize that a short-term project at a university may take more time to complete than a long-term project within the company. In another example, when JPMC approached faculty about designing a new course, we had to delay its introduction by a year so that we could transition faculty into new roles more seamlessly.

As they examine their own approaches to corporate collaborations, deans and academic leaders must answer one last question: *How should we shape the business*

school of the future? At Delaware and Syracuse we believe we have developed a model for how to work with a global business leader and generate value for all participants.

JPMC is a motivated industry participant, willing to work in an educational context. Its leaders not only understand how collaboration benefits its business, but how it benefits academia; they have embraced the school’s objectives as well as their own. It’s not easy to find such committed industry participants. But we believe such close industry-academic collaborations will be critical to building leading business schools and training top talent. **Z**

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