

From Concept to Implementation and Beyond: Rutgers MBS Program Enters its 10th Year

CONGRATULATIONS
2019 MBS GRADUATES!

RUTGERS
Professional Science
Master's Program



Dr. Deborah Silver
Executive Director

Congratulations and Welcome!

Congratulations to our 2018-2019 MBS program graduates, and a big welcome to our new class of MBS students starting in Fall 2019. This year, we welcome a record number of new students to our program—which continues to change and grow as we develop new courses and enhance existing courses to reflect and keep pace with rapid industry changes.

During this fall's new student orientation, incoming students will be using worksheets inspired by the book [Designing Your Life](#) (Evans, Burnett: 2016). This new exercise will help students plan their curriculum to support their individual career goals.

We have also developed and added two new courses for Fall 2019: *Food and Natural Chemistry*, a basic chemistry course designed for students with concentrations in Global Food Technology and Personal Care Science, and *Food Safety and Plant Operations*—an innovative course taught by a global food technology expert. You can read all about these courses and more in our [Fall 2019 Course Report](#).

We remain excited and energized as we enter our tenth program year and continue to grow in size, reputation, and offerings! Have a great semester! Also, stay tuned for details about the upcoming celebration of our milestone tenth anniversary!

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Upcoming Events

- Sep 13: [Welcome Lunch & Orientation for New 4+1 Students](#)
- Dec 3: [Externship Presentations](#)
- Dec 10: [Internship Presentations](#)
- Dec 12: [Capstone Presentations](#)
- Dec 17: [MBS Holiday Mingle](#)



Experiential Learning

A Day at the USPTO: The Fundamentals of Intellectual Property



Students from the Fundamentals of Intellectual Property course after a day at the United States Patent and Trademark Office (USPTO) on June 19, 2019

As during every summer for the past seven years, the Fundamentals of Intellectual Property class students visited the United States Patent and Trademark Office (USPTO) in Alexandria, Virginia. This trip offers students a rare opportunity to spend a day immersed in USPTO operations. Students interacted with USPTO staff, learned about critical roles—such as those of a patent examiner—and learned about the Patent Trial and Appeal Board (PTAB). At the conclusion of this year's visit, Amanda Myers, Deputy Chief Economist, discussed the [Progress and Potential](#) gender report, which describes in detail the effort to identify female inventors—an obstacle, because individuals are not required to disclose gender when filing for a patent.

Marketing: Assessment & Analysis at IKEA

Each semester, students from Professor Mark Burgess's Market Assessment & Analysis course visit IKEA to learn how the Swedish giant approaches customer service from both a marketing and management perspective.

During the visit, students are asked to observe and evaluate what customer-service elements make the IKEA experience outstanding; they are also asked to note what elements of customer service could be improved.



Students in Mark Burgess's Marketing Assessment & Analysis class pose in IKEA while learning about how strong marketing brands successfully cater to the consumer.

MBS Capstone Presentations



MBS Capstone students (above) present their business plans to distinguished judge-coaches: corporate representatives, MBS professors, alumni, and students.

Through the Capstone course, students hone their entrepreneurial skills by developing a business start-up based on an emerging technology. Paired into multidisciplinary teams, students research patented technology, identify ideal product use, and develop business plans to take products from concept to market. Projects culminate with teams making 10-minute presentations to "prospective inventors"—the project judges. Each team is evaluated for innovation, supportive research, and overall business presentation.

The winning team receives a Monopoly-money investment of \$100,000. Judges/investors have included executives from Chubb, PepsiCo, Saatchi & Saatchi Wellness, and Revlon. Presentations for the fall and spring semesters took place on December 4 and May 8, respectively.

The Fall 2019 [Capstone presentations will be held on December 12, 2019.](#)

Experiential Learning

The MBS Internship Program



Through the [MBS Internship Program](#), students have the opportunity to work with some of the nation's top employers—and more than 85 percent of those internships converted into a continued internship or full-time or part-time employment.

Led by Professor Kathleen Cashman, internships are offered during the fall, spring, and summer semesters and can be based on any MBS concentration. At the conclusion of each session, interns shared their experiences in formal presentations to fellow MBS students, faculty, company supervisors, and mentors—discussing the skills, experience, personal growth and professional development they cultivated through their internship experience. Presentations for the fall, spring, and summer semesters took place on November 6, May 7, and August 5, respectively.

The [Fall 2019 Internship Presentations](#) will take place on December 10.

Introduction to User Experience Design (UXD)



According to Dr. Rupananda Misra, Professor and Program Coordinator for the MBS UXD program, user experience design (or UXD) starts with understanding when, where, how, and why individuals use the products and services that they do. In our technology-driven world, where a single user may operate multiple devices in multiple locations to access information, successful UXD provides a seamless, user-friendly experience.

MBS starts students on their journey into user experience design with a one-week intensive immersion course. A broad overview of UXD on the first day starts students off with key knowledge. That afternoon, students divide into teams to put these principles into action by collecting information. Over the balance of the week, students put their learning directly into practice as each group conceives and develops a product or service, creates a prototype, tests the prototype with the target audience, and then presents their product to a panel of judges.

The next one-week intensive Introduction to UXD course will be held from Monday, November 11, through Friday, November 15, from 9 a.m. until 5 p.m. each day. This class is also open to non-degree students.

The MBS Externship Exchange

Since 2017, the [MBS Externship Exchange](#) has been pairing students with corporate-sponsored small projects, allowing externs to gain valuable, on-campus work experience while enabling participating employers to evaluate the potential impact of their company's project through the externs' research and proposed solutions. This year, the externship opportunity was also extended to a small number of Rutgers Honors College students.

Each project is mentored by both an industry expert and Rutgers faculty under the direction of Dr. Christie Nelson, Externship Coordinator. Externs have worked on projects from companies including Conrail, Citi Ventures, Siemens, OrthoClinical Diagnostics, the New Jersey State Police, and Nielsen. The fall, spring, and summer externships concluded with poster presentations held on December 4, April 30, and August 7, respectively.

For a complete list of semester-by-semester externship projects, [click here](#).

MBS Events: A Year in Review

PSM Grand Graduation Dinner

On May 16, 2019, all students who received their Master of Business and Science (MBS) degree in 2018 and 2019 gathered with PSM faculty and staff at the Jane Voorhees Zimmerli Art Museum for a celebratory dinner prior to the School of Graduate Studies Convocation and Commencement ceremonies on May 17, 2019.

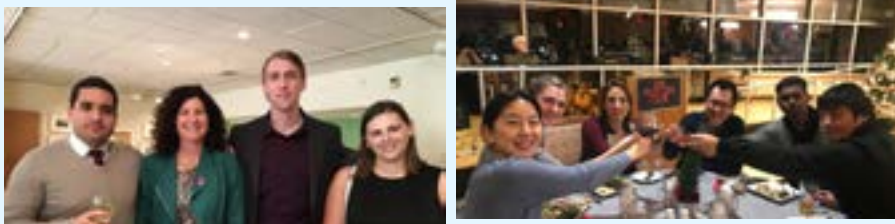


Dr. Deborah Silver, MBS program founder, congratulating this year's MBS program graduates and thanking MBS staff for all of their work.



New MBS graduates enjoy a night of celebration that included a delicious dinner and drinks.

MBS 2018 Holiday Party



On December 18, 2018, following a rigorous week of final exams, the annual MBS holiday party provided a welcome respite for students and faculty alike as they gathered at the Rutgers Club to mingle with alumni, guests, and each other. The club, with its festive holiday décor, offered an atmosphere filled with holiday cheer, and offered table after and table of mouthwatering treats and beverages!

MBS 2018 Fall Gathering



The MBS Fall Gathering gave MBS students from all concentrations the opportunity to socialize with one another as well as with MBS program faculty and staff. The Halloween-themed treats and appetizers were refreshing and delicious, and all attendees enjoyed take-home gifts.

School of Graduate Studies 2019 Convocation



On May 17, 2019, the School of Graduate Studies held its spring Convocation ceremony.

We wish our newest graduates—now MBS alumni—the best of luck, and look forward to not only hearing about their career success, but to welcoming them back as guest lecturers, mentors, and attendees at alumni gatherings which are now held regularly (see page 5).

MBS Alumni Association

Our Alumni Association was officially formed in 2018 and has been richly and rapidly expanding ever since. Our alumni work across industries, functions, professional levels, and geographical locations. Over the past year, the MBS Alumni Association formed four committees in the areas of professional development, communication, online programming, and on-campus programming.

Keep in touch! Check out our [MBS Alumni Services page](#), and visit our [Rutgers MBS Alumni page on LinkedIn](#).

Second Annual MBS Alumni Gathering

On October 17, 2018, nearly 50 MBS alumni gathered at the Rutgers Club for their 2nd Annual Alumni Event. Recent alumni were joined by alumni from the first graduating class in 2012. The evening began with Abbe Rosenthal, MBS head of corporate partnerships, student employment, alumni relations, and professional development, sharing some MBS news and updates, including the launch of three new online programs in 2019: Personal Care Science (PCS), Global Food Technology (GFT), and User Experience Design (UXD).

Graduate & Professional Admissions Open House



Each year, the Graduate and Professional Admissions Open House event offers working professionals and undergraduates alike the opportunity to investigate options for pursuing graduate education.

This year's event, held in October 2018 in the College Avenue Student Center, featured MBS's own Abbe Rosenthal and Vicki Pasigos as ambassadors who provided prospective students with information, advice, and guidance, and helped them determine how the MBS program could advance their educational and career goals.

Rutgers Professional Science Master's Program Turns 10!

In 2010, Rutgers was granted approval by the State of New Jersey to offer the The Master of Business and Science degree on all three Rutgers campuses. Upon inception, the program offered professional education to working STEM professionals in many fields of science.

Year over year, the program has continued to steadily grow. Today, Rutgers has one of the most comprehensive PSM programs in the country, offering more than 25 professionally-focused degrees in three main fields of study: Life Sciences, Engineering, and Computer & Information Sciences.

The goal of our program is to train the next generation of individuals to assume key integrator and leadership roles in science-intensive industries and to help translate research into commercialization to fuel innovation and economic growth. Guided by this mission, the program leverages Rutgers' unique geographic position, and strong industry ties and offers the following strengths and benefits:

MULTIDISCIPLINARY INTEGRATION & PARTNERSHIPS

Our program involves integrated partnerships among all professional schools on Rutgers' three campuses, as well as with employers in New Jersey and worldwide.

COMPREHENSIVE CAREER GUIDANCE

Advisors and executive coaches work individually with each student to understand their science professional goals and help them personalize their curriculum journey.

STRONG ALUMNI NETWORK & EXPERIENTIAL LEARNING

Our degree was founded with a link to the industrial ecosystem of the NY/NJ Metropolitan area. Coupled with a strong alumni network, we have continued to maintain this connection through an active advisory board, bringing practitioners into the classroom, and thriving externship and internship programs.

Presentations and Panels

Industry leaders and faculty experts share their expertise through concentration-specific lectures.

Climbing Big Data in Health Care



On September 26, 2018, MBS students of all concentrations gathered at the Busch Student Center to attend a presentation featuring panelists from Bristol-Myers Squibb and MBS Professor Rick Mammone. Topics discussed included the evolution and increasing application of artificial intelligence (AI) and big data technology in healthcare, as well as innovations in patient care, and ethics issues such as accessing patient data.

Sensory Evaluation in Personal Care: Everyday Items



On October 15, 2018, Dr. Gaewalin Ricklefs, Associate VP of Sensory and Expert Evaluation at L'Oréal, was a guest lecturer who came to discuss both sensory evaluation and sensory science, and who provided an in-depth look at the application and impact of sensory science on the Personal Care Industry. Sensory Evaluation is the scientific method used to measure, analyze and interpret the responses to products as perceived through sense organs—humans use all five senses during the sensory evaluation process. Sensory Science is how we use sensory evaluation when interacting with everyday personal care items.

Pharmaceutical Industry Career Panel



On November 29, 2018, MBS welcomed a diverse panel of pharmaceutical industry professionals who discussed their respective career paths. Hosted and moderated by Dr. Matt Sills, the common theme was “unstructured career progression.” Each panelist said they found their current position by moving one step at a time to expand their experiences. Unanimously, panel members emphasized that students don't need to have a predetermined career path, or view their first or current role as being forever. Instead, panelists advised students to discover what inspires them, and identified this singular aspect as perhaps the most important element in contributing to career development, job satisfaction, and overall success. Panelists also emphasized the importance of networking for students to advance their careers and expand their networks—both inside and outside their workplace and respective industries.

MBS: International Reach in Colombia



Earlier this year, Professor Ricardo Diez and Dr. Robert Fuller visited Bogota, Colombia, for a joint Rutgers and ACCYTEC (acronym for the Society of Cosmetic Chemists of Colombia) course on personal care formulations and fragrance. We are working on creating a follow-up course for students and alumni, with course implementation planned for August 2020. Details coming soon.

Contact our main office [here](#) or at (848) 445-5117 if you are interested in obtaining more information.

After the Degree: Preparing For a Post-MBS Career

On March 19, 2019, MBS students, alumni, faculty, and members of the Industrial Advisory Board gathered to mingle and dine at the 7th Annual PSM Alumni-Student Mixer. The evening featured a panel of eight distinguished alumni who shared how their MBS education helped advance their careers, set them apart from other candidates while interviewing, and what elements have contributed most to their career success. Advice to graduates included:

NETWORK, NETWORK, NETWORK (even when you don't feel like it.)

"Networking has been how I've gotten all of my promotions so far," says Joe Bongiovanni '16, now Biomarkers Operations Lead for Bristol Myers-Squibb. Bongiovanni acknowledges that he initially had to push himself to attend events. "Being an introvert, networking was not my favorite thing to do." But that changed as he progressed through the MBS program and realized networkings great value.

KNOW YOUR WORTH

Panelists reminded students that earning an MBS degree increases their value as an employee or job candidate, and reminded them not to sell themselves short regarding salary: "When you're looking for your first job, it might be tempting to take the first offer," says Chika Obiora '15, now UX Designer for Verizon. "But do your research—know what your experience is really worth," she says. Consider your experience combined with your new degree, she says "and then you can have an idea of what the market value is to your skillset."

KNOW THE TOOLS OF YOUR INDUSTRY

"Find out what tools and technology the people in your industry are using, and then practice those tools on your own," says Obiora. There are some things that you'll be able to learn on the job, she acknowledges, but there are other things that the company might not have time to teach you. "If you get that interview and you go in there and nail it—talk the talk and walk the walk—and they need someone who can use Photoshop, and you can't, then you're not getting the job."

THE IMPORTANCE OF JOB SATISFACTION AND REMAINING ENGAGED

"I was in baby product development for three years," says Tori Aleles '16, Senior Scientist for Global Oral Care Product Development at Johnson & Johnson. "I was very comfortable there, and I really enjoyed it, but it got to the point where I wasn't asking any questions anymore. And I was bored. So I made a choice to do something that was not in my wheelhouse."

Aleles moved to a totally new division in her company. "I had never worked in oral care. But I [decided that] I really want to hone in on my technical skills—especially at a company where it's all about technical efficacy and providing benefits to consumers."

Now, she says, "I'm asking questions again and learning a lot. I could have stayed somewhere where I knew a lot of things, and where I was comfortable, but [this new position] is helping me grow as a scientist."

REMEMBER: THE MBS CONNECTION ENDURES

Panelists emphasized to students that the MBS connection doesn't end with graduation—program resources are always available. "Keep in touch with the program through events like this," says Craig Moran. "If anybody invites you to a panel discussion in your concentration or asks you to become a mentor, definitely say yes." There's the good karma of paying it forward, of course. However, he adds, "you never know when that next network point of contact is going to be there."



PLEASE JOIN US FOR
THE 7TH ANNUAL PSM
MBS ALUMNI-STUDENT MIXER

6:00 PM - 9:00 PM
MARCH 19, 2019
COOK STUDENT CENTER

PANELISTS

<p>MODERATOR</p> <p>Natasha Ezzamel Drug Discovery & Development Rutgers University Human Subjects Protection Analyst</p>	<p>Chika Obiora Personal Care Science International Flavors & Fragrances Scent Design Manager</p>
<p>Amy Crisp Food Science Firmenich Food Technologist, Business Dev.</p>	<p>Joe Bongiovanni Drug Discovery & Development Bristol Myers Squibb Biomarkers Operations Lead</p>
<p>Craig Moran Analytics Sunovion & Sunovion Wellness Director Data Strategy & Analytics</p>	<p>Tori Aleles Personal Care Science Johnson & Johnson Consumer St. Spawitz, Global Oral Care PD</p>
<p>Chika Obiora User Experience Design Verizon UX Designer</p>	<p>Pooja Parash Engineering Management SPAC Manager Life Sciences Consulting</p>

JOIN US FOR A FUN EVENING OF ALUMNI SUCCESS STORIES, NETWORKING, GREAT FOOD, AND EARN 1 COLLOQUIUM! **CHANCE TO WIN AN AMAZON ECHO DOT!**

SCIENCE MEETS BUSINESS MBS RUTGERS EDU

Book an Appointment With a Career Advisor

Our expert career advisors and executive coaches work individually with each student to understand their professional goals and help personalize their curriculum journey.

MBS students should try to meet for advising at least once a year. We like to hear from you! We are conduct online advising sessions every semester for new and returning students. Please check the event listing for the appropriate advising sessions. If you would like to speak to one of our advisors, you may schedule an appointment by clicking here. If you book an in-person appointment as a prospective student, parking information will be emailed to you. When you book an appointment, we will call you at the scheduled time (domestic calls only). All bookings are EST (Eastern Standard Time).

MBS Students and Staff: Industry Presence

From workforce forums to signature industry events, MBS students and staff were on hand to serve as the MBS program's best representatives.

The New Jersey Big Data Alliance (NJBDA) Data Science Workforce Forum



On November 14, 2018, the New Jersey Big Data Alliance (NJBDA) held this year's Data Science Workforce Forum. The forum, held at Rider University, was co-moderated by Abbe Rosenthal, MBS's Head of Corporate Partnerships, Student/Alumni Employment & Professional Development.

The forum, entitled Building Effective Talent Partnerships: Industry and Academia, brought together companies, academic institutions, and government agencies to discuss more effective ways to build pipelines to data science talent. There was a highly interactive discussion between industry professionals, HR managers, and academic leaders that focused on how to effectively create strategies, programs and pipelines for connecting advanced computing talent—such as data analysts, programmers, etc.—with local employers.



Personal Care Science: NYSCC Annual Suppliers Day

In May, Rutgers MBS Personal Care Science students mixed and mingled with industry leaders at the New York Society of Cosmetic Chemists (NYSCC) annual Suppliers Day, which is the industry's biggest event of the year. This two-day conference is held at the massive Javits Center in New York City, and is where thousands of industry professionals showcase their company's latest innovations.

MBS Women's Leadership Initiative: Celebrating the Fourth Annual Women in Data Science Conference (WiDS)

On March 4, 2019, the fourth annual Women in Data Science (WiDS) conference was hosted at Stanford University to a packed house. MBS students remotely attended this unique and energetic event along with more than 100,000 virtual participants representing more than 150 organizations in more than 50 countries across the globe. The MBS viewing party in the CoRE building was coordinated by Dr. Christie Nelson, WiDS Ambassador.

Rutgers Day Celebration

MBS program students and staff sharing their spirit on Rutgers Day.



Student Presentations

Fundamentals of Analytics Poster Presentations

On November 6, 2018, students from the Fundamentals of Analytics class displayed the results of their hard work via poster presentations that detailed how they applied analytic methods to assess data and offer solutions to a number of diverse challenges, ranging from optimizing investment strategies to reducing opioid addiction. Some students partnered with companies to complete their projects, while others used publicly available data for their research.



Artificial Intelligence: From Concept to Market

On May 6, 2019, students in the Artificial Intelligence: From Concept to Market course presented their final projects under the guidance of Professor Richard Mammone. Throughout the course, five teams—each acting as a separate start-up company—used various artificial intelligence (AI) technologies to develop a specific product.

In their final presentations, each team took the audience through their project step by step, from start to finish, first detailing a complete analysis of their respective markets and then introducing their products to audience members. Students described how—in order to take their hypothetical products from concept to market—they prepared competitive analyses, financial projections for the subsequent five years, and timelines for their companies. They described the IPs which were relevant to their products, discussed their business models and value propositions, and prepared comprehensive SWOT analyses and marketing strategies.

Students also contemplated and devised various strategies to generate revenue: utilizing search engine optimization, earning revenue through Google ads /cost per click, and using AdWords campaigns were among the ideas and strategies discussed.



MBS Externs Present Findings at Becton, Dickinson and Company

On February 11, 2019, MBS students from the Fall 2018 Externship Exchange presented the results of their months-long work at Becton, Dickinson and Company (BD), a medical technology company and device manufacturer with headquarters located in Franklin Lakes, New Jersey.

For this particular project, students separated into two teams: one team focused on the analysis of the results of the Voice of the Associates Survey, and one team focused on anomaly detection in Travel and Expenses.

At the conclusion of their research, each team presented their findings. Students discussed what they discovered from their respective data sets, what analytics techniques they employed, and provided suggestions based on their findings. At the end of the event, the MBS Externship students and the BD employees thanked each other for their joint participation and mentorship, respectively, and took a commemorative photo together to wrap up the visit (below).



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As the Rutgers Masters of Business and Science degree program enters its tenth year, we continue to change and grow—keeping pace with rapid industry changes.

Our Story: the Rutgers Master of Business and Science Degree Program

OUR MISSION

Our degree, the Rutgers Master of Business and Science (MBS), was established in 2010 to dually serve the needs of New Jersey's working, science-based professionals and support the STEM-based industries of the surrounding New York / New Jersey Metropolitan area.

Our goal is to train the next generation of individuals to assume key integrator and leadership roles in science-intensive industries, thereby helping to fuel innovation, accelerate technological discoveries, and translate science-based research into practical applications and consumer offerings that drive the economic growth of our state.

WHAT WE DO

Through an integrated, interdisciplinary, and dynamic curriculum, we meet the STEM industry's ever-changing labor needs by educating a new generation of professionals who can keep pace with rapid workforce changes.

Our unique program combines advanced, STEM-based education with professionally guided business instruction—enabling graduates to step confidently and adeptly into the STEM workforce equipped not only with advanced academic knowledge, but with the business skills essential to professional leadership and advancement.

As part of the milestone 10th anniversary of Rutgers' Professional Science Master's Program, we will be holding a special commemorative event. Stay tuned for more details!