



The Insider Course Report – Fall 2021

Welcome to a new semester! In this newsletter, we discuss some of our ongoing courses and describe some new courses. Read through the newsletter – and feel free to explore courses not necessarily in your immediate area. Technology is continually changing and moving in new directions – go out of your comfort zone to learn a skill for the future! Tap into the *Passion & Purpose* workshops running in the fall. There are open advising sessions running through the summer. Please refer to the events page for days/times and registration information: <https://mbs.rutgers.edu/events>.

NOTE: As of the writing of this report, we are planning some fall in-person course meetings and events. We may be able to add more as the semester rolls on, so please keep an eye on <https://mbs.rutgers.edu/events> for the latest updates.¹

And now for the courses...

Business Core & Elective Courses:

Finance & Accounting 16:137:530
Communication & Leadership 16:137:502
Marketing: 16:137:507
Ethics 16:137:500
Capstone 16:137:600

As is the case every semester, all the core business courses are running. *Principles of Accounting & Finance* is a general course combining both finance and accounting. The course is being offered asynchronously as well as synchronous online on Thursday afternoons. It is a great business course for new students. The very popular *Communication & Leadership* is running on Monday and Tuesday evenings for part-time students and on Monday afternoons for full-time students. This is a great class to take when you are

beginning to think of making a career move. As part of this class, students will be interviewing leaders in their field or just professionals that they want to impress and meet. *Don't waste this opportunity* – make the most of your interviews to further your career – and make sure you give yourself enough time to make those connections. This class emphasizes our efforts to help students get the most out of their education and to help map out their development plans. This is an opportunity to make a major and lasting impact on your professional future!

Market Assessment and Analysis for Business & Science is offered in two asynchronous sessions. This course has traditionally included a trip to IKEA to see marketing in practice ([see this blog post](#) for more about the trip); we are planning (👉) that the trip will be in person again in the fall. (For those who are not close to the NJ IKEA – you can still go to your local IKEA!) The 1 credit *Ethics* course is also offered this semester – it is an asynchronous online course (but be on the lookout for a panel discussion on ethics and current events!). Finally, the *Capstone course* is offered on Thursday evenings. Remember, in the capstone course

¹ Some online/remote courses may have a scheduled lecture time or hybrid lecture time (these times may be listed in the notes section on the registration system) some will be fully asynchronous.

you will be doing a presentation in front of our distinguished guest judges. **The final presentation is also open to all students in the program** (as colloquium credit!) and we encourage you to join us – to both give support to the . Check the events listing on the mbs.rutgers.edu website for the date & time.

All MBS students can take some Executive Education courses for credit. These include the Mini-MBA courses (students can take one) or CCPD courses (online training – web, cyber, Six Sigma, PM, etc.). Register for the correct section of 16:137:651 and then fill out the online form. Please see the instructions [on this page](#).

About colloquium...for those of you who are planning to complete the MBS program at the end of the Fall 2021 semester, make sure to register for **Colloquium in Professionalism for Science & Technology Management (16:137:503, 504)**. Yes, there are 2 course numbers. You only need to register for one. Register for 16:137:503 for 0 credits if you will have 43 credits by the end of your final semester. Register for 16:137:504 for 1 credit, if you will only have 42 credits by the end of your final semester as you will need 1 more credit to qualify for graduation. You can keep track of your

colloquiums through the Canvas Student Resource site. **FYI Fall 2021 graduates**-keep an eye out on the PSM Student Resources Canvas Site and you Rutgers email for important announcements and deadlines about graduating.

There are many different **business electives** to choose from. Below, the most relevant and popular are highlighted. The project management course is running asynchronously (16:137:601 15019 **Special Topics: Project Management**). This course covers an essential skill found in almost every science/tech job posting (it may be the most requested general skill). For those in Sustainability, we also have **Fundamentals of Sustainability** (16:137:554 19610) running. It is a project course led by Prof. Linky. Guest presenters from the private sector interact with the class in some lively discussions being planned. Need to present data or learn Tableau (for those that track job postings, this is one “skill” that many jobs are asking for)? The **Business Intelligence with Visual Analytics** (16:137:553 05521), offered online, is popular course that covers this material.

Students also have the option to take any of the Mini-MBA courses (16:137:651 **Topics in Management and Professional Development** see sidebar). The Mini-MBA is a popular series of courses given by the Executive Education division of the Rutgers Business School. For those that are interested in **certifications**, use this course number for the “CCPD” courses which include Certified Ethical Hacker, CompTia, Six Sigma, etc. (please see the sidebar for more information).

Students can take a **professional internship** or **research internship** as either a business or science elective. The internship course has an online component that is taught by Kathleen Cashman (our very own executive coach) as advanced leadership & communication. (For instructions on how to get a special permission number for internship, please see <https://mbs.rutgers.edu/mbs-internships>.) Are you currently working and want to try something different? You can do an Internship-at-your-place-of-work with another boss (reach out for more info). You can also try at Externship. What is an **Externship**? It is a design-based experience where students work on industry sponsored projects (yes, even working students can

participate!) Please go to <https://mbs.rutgers.edu/externship> to learn more (and attend one of our externship webinars for more information). You can get credit for the project or just do it for experience (participate as “club” – to put on your resume). This is a “hot topic” in education circles (see this [Forbes article](#) referencing action-based learning) which we have been running for many years now. **Externship is available to students in all concentrations** (16:137:653 23457). (For those students that need an in-person course, please use index number 23733 when registering.)

And of course, there are many other business/professional courses being offered on campus and some listed on our web site under [courses-by-semester](#). If you find a course that you have the prerequisites for – *go for it!* We want you to think-outside-the-box – if your **odyssey-plan** includes a skill you need, find the course! If you don't know what an *odyssey-plan* is, attend the Design-Your-Life workshops running this fall.

Special Permission Number: Many graduate courses require special permission numbers to check on prerequisites. Please read the following on who to contact about getting special permission numbers

<http://mbs.rutgers.edu/special-permission-number-request>. Note: *if you are interested in business courses, you must go through our office to get a special permission number. The form is on the web site above.*

And now for the science courses!

Life Sciences:

For those interested in learning the basics of the science in the cosmetic/personal care industry, **Fundamentals of Personal Care Science** (16:137:570 19612) will be taking place online on Monday evenings. This course is also great as an elective for students in Biotechnology, Drug Discovery, Food Science and Chemistry. **NEW this semester – the popular Dr. Ricardo Diez will be offering an advanced formulation course – 16:137:607 Special Topics: **Advanced Topics in Personal Care Science & Formulations**. In addition, **Fragrance Application for Personal Care Science** (15:137:572 19613) will meet online on Wednesday evenings. (There are prerequisites for both of these course.)

Another personal care elective that is also part of **Food Science and Global Food Technology** is **Current Regulations and Standards for Food and Cosmetics in Domestic and International Trade** (16:137:577 19615), which is offered asynchronously online. Ron Levine leads a team of instructors (with him is Nadine Goldman, and MBS graduate, and Steve Armstrong) on this important course on the legal and regulatory systems that govern the production, labeling and distribution of foods and cosmetics. It's also appropriate for anyone who is working in Quality for a cosmetic/food company. This is a hot area in the global marketplace for Food & Cosmetics!

Additionally, students in food science, global food technology, and sustainability should take **Concepts in Global Agriculture** (16:137:576 19614). Covering many aspects of the agri-bio marketplace (hot topic!), this course will be online, and Professor Robson will work with students to set scheduled class meeting times.

For Biotech and Drug Discovery folks: The **Concepts in Biotechnology and Genomics** (16:137:615 19624) on Wednesday evenings is online. This is a popular course and covers many topics that use biotech (great for those interested in biofuels or agriculture as well!).

Also for both Drug Discovery and Biotech folks: *Drug Discovery from Concept to Market* (16:137:510 19602) is offered online on Thursday evenings. This is a foundational requirement for the Drug Discovery concentration. You'll also find *Drug Discovery through Pre-clinical Development* (the follow-up to 510:16:137:511 23511) online on Monday evenings. *Clinical Research Informatics* (16:137:580 19616) will help prepare students for more advanced data analysis, a key part of drug discovery science. Additionally, consider *Python Methodologies* (16:137:552 19609 or 05520) to learn this ubiquitous coding language that is valuable in many fields (see below for additional information).

Computer & Information Sciences/Engineering:

Every semester we run the popular Introductory Python programming *Python Methodologies for Data Science* (16:137:552 19609 or 05520). This course is appropriate for anyone in any concentration who needs to know python programming and scripting. Python is becoming one of the most popular programming languages in the world. It has a reputation for being a well-supported language that is ideal for education, and it's widely popular among scientists. This course acts as an introduction to computer programming with the Python programming language. It covers the basics of imperative programming as well as selected areas of computer science, object-oriented programming and data structures.

For those interested in delving more deeply into data - *Fundamentals of Analytics* (16:137:550 19607) is scheduled on Wednesday evenings online and the *Introduction to Cloud and Big Data systems* (16:137:539 19606) is also running online on Thursday evenings. Both of these classes have python as a prerequisite. Students will learn about Hadoop, Hive, Spark, and other data and stream processing applications that power the biggest online services around the world. Another advanced course, *Big Data Algorithms* (56:198:562) really delves into the algorithms behind the big data revolution (see the prerequisites).

For some general technology courses: In addition to the **Business Intelligence** course, **Database & Data Warehousing** (16:137:538 05517) covers the basics of database technology – perfect for those in analytics, UXD, IT and for those interested in learning about informatics. Most importantly, it covers the #1 technical-skill for almost all science/tech jobs... and that is (drum-roll please)... SQL. This is a perfect course for anyone who needs to digitally upskill, works with data, or needs to learn SQL! *Another general course is Mobile Application Development from Concept to Market* (16:137:537 19605). This course covers design principles in both iOS and Android and looks at trends in the App Store and Google Play markets. (This course is also open to those in the Life Sciences who have the idea for an App – join the course and watch your idea come to life!!!)

Interested in product or experience design? *Introduction to User Experience Design* (16:137:531 19604, required for IT and UXD and one of our most popular courses) will be meeting in bootcamp style at the Rutgers Atrium, 9 AM – 5 PM, November 8 – 14. (The final exam will be online.) UXD covers how to think about developing a web site/ web presence/ computer application from the user's perspective. If you are thinking about developing a business that involves the web – whether it is in cosmetics or biomedical devices, this course could help. This is also a key course for anyone thinking about product management or product design.

Lastly, *Fundamentals of Systems Engineering for Engineering Management* (16:137:560 19611) covers the design requirements of putting together a big project, a great course if you are interested in a business analyst (BA) role, systems engineering, UX, engineering management, software engineering, software management, cybersecurity, product management or IT management. For information on job opportunities as a Business Analyst, [see here](#). While some IT background is necessary, it is not too tech heavy and a perfect course for anyone who will eventually have to lead an IT project (even from the business perspective) or is part of a technology team (like UXD). This course also covers a topic that is getting a lot of press now – systems thinking.

Some other courses of interests: (see the sidebar on page 3 about *special permission numbers*)

Regression Analysis (16:960:563 21904) – required for analytics! This course is happening on Tuesday evenings on campus in the fall. It's offered every semester (and summer) but needs a prerequisite basic stats class. *For those that want online courses, the online version of Regression is given by MBS in the spring (with a 16:137 listing).*

Politics of Cyber Warfare (16:790:558) *a course from the political science relevant to those in cybersecurity.*

Negotiation (38:578:505), **Introduction to Corporate Social Innovation** (22:620:590) and **Project Management** (22:799:691) are all great business electives.

Bioinformatics (16:765:585 18373) – a basic course in bioinformatics and super-important for those in biotech & drug discovery, this course is scheduled for two Thursday online sessions. For those that are interested in bioinformatics, python is the language of choice. Check out the Fundamentals of Python course!

Quality Management (16:540:580 05954) – this is a course offered online on Wednesday evenings by Industrial Engineering and covers the basics of quality and reliability. Appropriate for all engineering, especially engineering management, and those working in the life sciences and bio/pharma area (biotech, drug discovery & development, personal care, food science). *Quality Management is a popular area for many jobs in the NY/NJ area. This is a basic course appropriate for most of the concentrations.*

Sneak Peek at the Winter 2022 Design Courses (so far, stay tuned...)

- *Visual Design for UXD* – a winter session covering visual design, for all of you tech artists!
- *3D Bio Printing* – a hands-on “wet-lab” course – coming back in person!!!!

COMING SOON – Product Design & Innovation – new courses and a new concentration for those that want to focus on Product!

Quick Links:

- Courses By Semester suggestions: <https://mbs.rutgers.edu/course-list>
- Special Permission Numbers: <https://mbs.rutgers.edu/special-permission-number-request>
- Event listing (and advising sessions): <https://mbs.rutgers.edu/events>
- Rutgers Schedule of Classes : <https://sis.rutgers.edu/soc/#home>