



The Insider Course Report – Spring 2018

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! And don't forget to attend one of the many online advising sessions we have scheduled.

And now for the courses --

Business Core & Elective Courses:

Finance & Accounting 16:137:530

Communication & Leadership 16:137:502

Marketing:

- Market Assessment for Bus & Sci 16:137:507

Ethics 16:137:500

Capstone 16:137:600

Electives

- Project Management
- Supply Chain Management
- Exec Ed Electives: 16:137:650 : MiniMBA (11799) or RIE or CCPD (14497)
- Design Innovation 16:137:529

As is the case every semester, all of the core business courses are running. *Principles of Finance & Accounting* is a general course combining both finance and accounting. It is a great business course for new students. There are two sessions, an online course and an in-person course. (As a note, we only run the online Finance course in the spring. The in person course is taught every semester, Fall, Spring and Summer). The very popular *Communication & Leadership* is running on Mondays (Monday day session for full time students, and a Monday evening session for students that work during the day). 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 is an opportunity to make a major and lasting impact on your professional future!

Market Assessment for Business & Science is running Thursday evening. There are two versions of this course, the fall is a general course but includes online marketing, digital marketing, and social media marketing. The spring has a life-science focus. This course has a class trip associated with it to see marketing in practice (see [here for a blog](#) about the trip). Students also have the option to take any of 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. The Mini-MBA courses can be used in place of a marketing course (if you take a Mini-MBA marketing), or can be used as a business elective. Please note: for students taking the Mini-MBA marketing, you will be required to learn some more about marketing research methodology on your own in order to complete the capstone course. In addition to the Mini-MBA there are other executive

education classes available (such as Customer Experience Management, Certified Ethical Hacker, etc.) – please see the sidebar for more information. The 1 credit *Ethics* course is also offered this semester – it is an online course. There are some in-person colloquia given by visiting professionals in addition to online exercises. Please make a note of those times. Finally, the *Capstone course* is offered on Wednesday evenings. Remember – in the capstone course 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.* We encourage you to come to see what it is all about. Check the events listing on the mbs.rutgers.edu website for the date & time.

There are many different business electives to choose from. Below, the most relevant and popular are highlighted. *Project Management* (22:799:691 14538 NB) and *Supply Chain Management* (22:799:692 12340 NB). Please note the index numbers above (and on the web site). **These are special sections courses open to students without any prerequisites or special permission numbers!** For those in Sustainability, we also have the *Sustainable Supply Chain/Green Purchasing course* (16:137:602 19976) running. It is a project course led by Prof. Lyons. This is a great course for the engineering management student and the sustainability students (and counts as a science course). It is open to all other students who want to do a project around sustainability and green purchasing. Students will be working with companies and implementing a supply chain solution. For those in Food: *Global Food Supply & Quality Management* (16:137:603 20521) is being offered this semester. This course would also be great for personal care students.

All MBS students can take some Executive Education courses for credit. These include the Mini-MBA courses and RIE (rie.rutgers.edu) – customer experience management, cybersecurity, or CCPD courses (online training – web, cyber, six sigma, etc.). Register for the correct section of 16:137:651 and then fill out the online form. [Please see the instructions at mbs.rutgers.edu/topics-management](http://mbs.rutgers.edu/topics-management)

Didn't get a chance to take one of the design courses in the winter? It is not too late!!! The very popular *Design Innovation* (16:137:529) course is back, taught by Prof. Mammone. This course includes the “*Make & Market anything*” lab held in the makerspace (with 3D printing, lasercutting, Arduino, etc). Come learn how to dream up a product and actually “make” a prototype.

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. And of course, there are many other business/professional courses being offered on campus. If you find a course that you have the prerequisites for – go for it! (For instructions on how to get a special permission number for internship, please see here <http://mbs.rutgers.edu/careers/internships> .)

And now for the science courses –

Life Sciences:

For those interesting in learning about the science in the cosmetic/personal care industry, a new follow-up to the fundamentals course is being offered: *Product Development & Formulations for Personal Care*

Science (16:137:571) is being. It is a very popular course taught by the energetic Dr. Ricardo Diez (recently retired from Chanel Inc). He is truly one of a kind! This course is also great as an elective for students in Biotechnology, Drug Discovery, Food Science and Chemistry. Also for personal care, *Dermaceutics* (16:137:603 19897) is running this semester. This course is held every third year – so take it now! For Biotech: 16:137:616 *NextGen Biotech/Genomics* and 16:137:617 *Bioinformatics* (very important to know!) are scheduled. Both of these courses are great electives for those in Drug Discovery, Food Science, Personal Care Science and Chemistry. And if you are looking to strengthen your skills in bioinformatics, please consider taking the python or database courses being offered –see the suggested courses for the IT concentration online.

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.

For Drug Discovery: 16:137:511 *Drug Discovery Through Pre-Clinical Development* (follow up to 510), 16:137:582 *Fundamentals of Regulatory Affairs* (very popular, and great for all life science concentrations), and 16:137:581:90 *Statistics for Clinical Research* (online and has SAS lab component – a skill in demand by employers!) are running. SAS is one of the *top skills* requested by employers in the life science industries. All of these courses are very applicable to the biotech, personal care and food science concentrations. *The SAS class is also suitable for students in analytics/IT who want to master SAS* (the example programs all use clinical data, but it is suitable for others without that background).

Computer/Information/Engineering Sciences:

For those in information technology, engineering, analytics and UXD, there are a number of core and elective courses running. The *Cybersecurity and Secure Systems* (16:137:561) course covers fundamentals of cybersecurity and building secure systems. Cybersecurity is increasingly important in today's job market and the growth rate is projected to be 37%, which is much faster than for all occupations (even computer occupations) (Source: www.bls.gov). Also, see the new course from Political Science, 16:790:546 *The politics of Cyber Warfare*. This looks to be a very interesting and multidisciplinary class covering cyber space, cybersecurity, policy, economics and regulation. And for a general overview of employment in cybersecurity, [please see our blog here](#). The ever-popular *Enterprise Software Architecture* (16:137:541) is also scheduled. This course goes over everything you want and need to know about the IT industry and where IT is used. It is also great for those in cybersecurity, as one of the skills that came up for Cyber (and for analytics) is the ability to design and analyze software systems. There is also a cybersecurity component to this course. The hybrid course, 16:137:602:OC *Introduction to Cloud Computing and Big Data*, will be focusing on “the cloud” and in particular big data applications. You need a programming course to take it (only one) but it is applicable to anyone in any of the sciences that wants to learn more computing. We will be running Introductory Python programming again: *Python Methodologies for Data Science* (16:137:552). This was a very popular course taught by “Big Lars” and is

Internship/Special Problems – what is it?

We have three options for getting credit for doing internship or research projects, and they are:

16:137:605 *Special Problems*

16:137:611 *Research Internship*

16:137:608 *Professional Internship*

If you are doing a large project with a professor, please register for research internship. If you are working for an outside company, please use [Professional Internship](#). In both cases, you will be part of a class (we will be contacting your supervisor for the final grade and to make sure you did a good job). You will also be required to do a presentation. The Special problems class is to be used for other types of projects (e.g., if you participated in externship).

appropriate for anyone in any concentration who needs to know python programming and scripting. For those that want an advanced python course (with data structures and algorithms), we are teaming up with Camden to stream the very popular *Introduction to Algorithms for Computational Science* (56:137:501) course – this is a live course which will be streamed from Camden to a video classroom in New Brunswick. Data structures is super important to know and is used as the basis for most of the job interview questions in the analytics/computer area. If you want to pass those interviews, you must take this course!

16:137:602 ST *Applied Regression Analysis* is available this semester – this is an online course which will be using both SAS and R to teach regression. A new course: 16:137:602 DU *Applied*

Artificial Intelligence from Concept to Market is being offered this semester. It will be utilizing Google TensorFlow. This is a hands-on class where you will learn how to use AI to create a product. This is sure to be an exciting and extremely relevant class! And just listed: *Database and Data Warehousing* – a new more intense Database management course. For those in analytics this will cover some more advanced topics.

Please note: The very popular *User Experience Design* (16:137:531, required for IT and UXD and one of our most popular courses) will be running in May, so it will be listed as a summer course. Remember, this course runs in an “executive” format, meaning that the lectures and some intensive assignments occur over a week. The rest of the course meets as a follow-up on weekends. 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 exercise science or biomedical devices, this course could help! All of the above courses are basic courses appropriate for anyone with an IT/UXD/Engineering concentration and fundamental enough for anyone with a science/engineering background. The, *Usability Evaluation* (16:137:535, a course in UXD sequence) is running this semester.

Interested in Sustainability & Energy? Prof Lyon’s 16:137:602 *Sustainable Supply Chain* projects course is a must! Food & Agriculture: *Global Food Supply and Quality Management* will be running this semester. For those engineers who are working in the food industry, this would be a great course as well! Also, take a note of 16:790:585 *The Politics of Global Food in Security*, a course given by political science about food security.

Online/distance learning/hybrid Courses:

Distance Learning classes this semester: Algorithms for CS, Drug Discovery, Formulations, Fund. Of Analytics,

Online Courses this semester: Finance & Accounting, Ethics, Database, Stat. Clinical Trials

Hybrid Courses this semester: Applied Regression Analysis, Python, Cloud & Big Data, Cybersecurity, Global Food Supply, Fundamentals of Regulatory Affairs

Want to know some of the most popular (non 16:137) science courses for MBS students? They are: (**see sidebar about special permission numbers)

Negotiation and Conflict Resolution (34:833:572) – A negotiation course that is open to our students and is a popular business elective. It is taught by the two experts at Rutgers.

Programming Finance (16:332:503) – An introductory course in C++ which also covers some basic data structures (linked lists). Exercises are related to financial programming.

Planning and Operations Engineering (16:540:501)– this is a course offered by Industrial Engineering and is appropriate for all engineering, especially engineering management.

Advanced Food Sensory Science (16:400:530) – a course covering sensory science a key component for both food and personal care products. This course is taught by Prof. Tepper a noted expert in the field. (This class is available as a distance learning option, special permission is needed.)

Energy Sustainability & Policy (34:970:620) - a course offered by the EJB School of Public Policy that covers policy related to energy. The course covers the power grid in the US - a very popular course with engineers and sustainability students.

What is the difference between online/distance learning/hybrid?

The MBS program has all types of courses running to help you with your scheduling. A fully online course will not have any in-person meeting. The online course could be synchronous (webinar type classes held at a certain time) or asynchronous (no joint webinar sessions). A hybrid class may be mostly online with some in-person meetings. Generally, hybrid classes run in our program will have accommodations (i.e., GoToMeeting support) for those who cannot attend the in-person sessions. Please make sure to get in touch with the Professor about these sessions. Distance Learning courses have a regular in-person class but with support for those that are remote (GoToMeeting availability for those that will be attending remotely). Sometimes the professor may be remote; sometimes some of the students are at a remote location.

**MARK YOUR
CALENDARS:**

December 12, 2017

5.30-7.30, CoRE

**Boardroom - Annual
holiday party featuring
“The Jazz Genomes”.**

Hold the date --

Tuesday, March 13,

**2018 – Alumni Student
Mixer.**

For those graduating:

Thursday, May 10,

**2018: MBS Graduation
Dinner at the Zimmerli
Museum**

Summer Courses to come:

→ Fundamentals of Intellectual Property – a great course covering the evaluation and valuations of patents. This course includes a trip to the USPTO in VA. In addition to IP, students gain an appreciation of technology transfer and business strategy.

→ User Experience Design – will be meeting in the last week in May. Register in the summer session for this course.

→ Linux Administration – if you want a job in cybersecurity, linux is the #1 skill - A great course for anyone in technology.

→ Food Business Innovation - a great course for those interested in new food ventures.

→ eXternship eXchange (X²)– Join us this summer for the externship opportunity. Externships are outside projects that we offer to students through a supervised structure. You can take this for credit or just work on a project for experience. The only condition – you must commit and attend all meetings. Last year there was a wall street bootcamp, SAS certifications, 2 pharmaceutical projects, Nielsen ratings, and some security sponsored project (Meadowlands, Rutgers Security, Forensic Science). A full list of corporate sponsored projects will be posted in the spring.

Our labor blogs have been rebooted – keep a look out for labor prospects on sustainability, cybersecurity, analytics, personal care, etc. If you have a question about careers & skills in your scientific area, contact us!

***“Education is learning what you didn't
even know you didn't know.”***

--Daniel J. Boorstin,