A teaching sabbatical
at New York University (NYU)

NYU TANDON SCHOOL OF ENGINEERING

Fall semester 2016

Catrin Lammgård

School of Business, Economics and Law at University of Gothenburg
(Handelshögskolan vid Göteborgs universitet)
Introduction

I spent my teaching sabbatical at the Tandon School of Engineering at New York University (NYU). The School was formerly called the Polytechnic School of Engineering, but changed name during 2016 due to a large donation from the Tandon family. My appointment as visiting faculty at NYU was from August 15-December 31 2016. I taught on the Master program of Transportation, at the Department of Civil and Urban engineering.

New York University (NYU)

Let me start with an over-view of NYU. Founded in 1831, New York University is the largest private university in the United States. The student body is more than 50,000 students at three degree-granting campuses in New York, Abu Dhabi (since 2010), and Shanghai (since 2013) and operates 11 global academic centers and research programs in more than 25 countries. New York University is also one of the largest employers in New York City, with more than 19,000 employees. The full-time faculty consists of 4,527 (of which 1,838 are Tenured and tenure-track). In the fall of 2014, there were a total of 57,245 students (24,985 Undergraduates, 24,289 Graduate and Professional students: and 7,971 Noncredit Programs students). The international student body was 25%.

NYU has two “campuses” in New York: one at Washington Square and one in Brooklyn. I was at the Brooklyn one at the Metro Tech Center (see map) where not only NYU is placed but also a concentration of high-tech companies as a minor “Silicon Valley” in NYC. It is well connected with subway lines from Manhattan and Brooklyn. There are also free shuttle buses between Washington Square and the Metro Tech center for students and staff at NYU.
Preparation and planning:

When I received the good news about the STINT-grant, I immediately contacted my future colleague Dr. Joseph Crow, Joe, at the School who suggested that we would develop a new, course together. In mid-February 2016, I went on my planning trip for a week together with my partner (as I brought him and my 17-year-old son during the teaching sabbatical). I visited my coordinating contact Larry Jackson, who is the Director for Global Academic Planning at the Office of the Provost, at the head building at the Washington Square campus. Since he was quite new in his role, I was sent to the Office of Global Services (OGS) nearby to Tracie Masek, who takes care of issues of incoming and outgoing faculty to/from NYU. One of OGS’s most important roles is administrating the VISAs and I was provided with the information and forms to fill in later (for example DS-2019) from Sweden. They also took contact with the School and arranged with the necessary documentation needed from the School’s dean. All were very helpful and efficient in these matters. Back in Sweden, I booked an appointment at the US embassy in Stockholm (after all papers and forms from NYU is cleared) a bit late as it got quite booked in the summer (we booked in June and got there in July). You have an appointment at a certain hour but so do everybody who gets there and it took about 3 hours in line. Instead, be there when they open even if it way before your appointment time. Check which family members have to be there in person (depending on age for example we had to go all three in person).

During the planning trip I also met with my future colleague Dr. Joseph Crow at the School and planned for the course we were going to create. I immediately felt that our collaboration was going to be equal and we shared the same visions of the course. This was fundamental as this meant that we had no problems planning the course in more detail at a distance later on (by e-mail).

There were two important, practical issues to be solved as well. A major task was to find accommodation in NYC. NYU has apartments with reduced rent but only for permanent faculty. It was clear that there are many researchers for all over the world visiting NYU and the university could only offer to add me to the group mail list for incoming and outgoing researchers. Back in Sweden, I responded very quickly as soon there was a NYU researcher sub-letting their campus apartment. Even if I did it 10 times, I never even got a reply so I gave up this option. During the planning week in February we went around to see possible options. We looked in Brooklyn (downtown and Williamsburg) but quickly realized that the prices there were the same as in mid-town Manhattan. Therefore we concentrated our efforts to the area mid-town (25 min to commute to Brooklyn by sub-way, a nice neighborhood and close to Central park).

As we needed a 2-bedroom apartment I would say that the prices were about USD 1500 more than a 1-bedroom apartment. We looked at entire apartment buildings (where a professional company sublet apartments) with a doorman etc. and there the prices were at least USD 1500 more than the apartment we finally rented. All real estate agencies told us that 4-6 weeks before our planned moving in date was the viable time to contact agents. They normally charge on month rent as a service fee for a contract. In April we were back a week (as I was at a conference planned before the STINT decision) and once again we spent three days looking for an apartment. We
looked at apartments through AirBnB but this was more expensive and also you are not granted that the tenant may sublet the apartment for the landlord (and risk to be kicked out and no money back). We finally found an agent that had a 2-bed apartment belonging to a private person and we wrote contract and paid in advance (agent fee + one month rent upfront and another month rent 30 days before moving in). We paid USD 3750 per month including amenities. Finding somewhere to live is the most challenging during the whole stay in NYC!

When it come to a High school for my son, I did research from home (webpages of NYC Department of Education and InsideSchools) but if was not possible to arrange a place at a school in advance. As soon as we got to NYC in August, we visited the Department of Education and there we could put forward if we preferred any specific schools. Remember to bring your apartment contract with the address and the grades of the child in order to enroll. Get there as soon as you can when you arrive in NYC, as some schools get full.

Tasks and responsibilities

I was at the Civil and Urban engineering department of the school, focusing on Transportation. I developed and co-taught a course (Sustainable Logistics and Freight Transportation) at the program Master of Science, Transportation Management with the host Dr. Joseph Crow. Since he is a researcher in transportation from the engineering side and I work with logistics and freight transportation at a business school, we found it interesting to mix our perspectives and knowledge into this new course around Sustainable logistics and transportation. Joe uses predominantly quantitative methods in research and I use both qualitative but also quantitative methods. This made it interesting how we could contribute to the topic from various angles.

For each class, one of us was main responsible for that particular class. My module covered mainly sustainable logistics and freight transportation while Joseph covered transportation with focus on freight flows and Intelligent Transport System (ITS). We would coordinate our activities before the classes and jointly develop the student assignments. The examination was 5 minor written reports (10% each), 1 major final report (40%) and the rest was student participation in the classroom (10%). We both corrected the papers using a common rubric for allocating the points to the handed in assignments. We were both present at every class session with our students, although one of us was the main responsible for a given lecture. However the other contributed and added additional comments to the lecture / presentation.

I also held a MAMCA workshop for the first time as a result of prior collaborations with the Vrije Universitet in Brussels. The methodology is developed by Professor Cathy Macharis and is a mix between quantitative assessment and qualitative assessment of alternatives in urban distribution. MAMACA stands for Multi Actor Multi Criteria Analysis. They let me use their newly developed software in class in a workshop where the students were representing different stakeholders (for example policy makers, freight receives, freight forwarders, transport buyers etc.). This was very interactive and the students were not so used to this in the beginning, but relaxed after a while. Their feedback was very positive.
Activities during the semester

• The main task was to develop and lecture on our new, commonly developed course Sustainable logistics and freight transportation.

• Grading the written student assignments and the final report was also conducted where I put a lot of effort into the feedback.

• I held a MAMCA workshop with the students (as described above)

• Interaction with students at the arranged Welcome back-reception for teachers and master/PhD students at the department.

• Me and Joe held seminars with three prominent speakers on the topic of freight transportation in the city inviting students and faculty:
  
  o Stacy Hodge, Director of the Office of Freight Mobility of the New York City Department of Transportation, and also on the National Freight Advisory Committee.

  o Professor Jean-Paul Rodrigue, Hofstra University, a member of the World Economic Forum Global Agenda Council on the Future of Manufacturing as well as of the International Association of Maritime Economists. He is also the New York team leader for the MetroFreight project about city logistics (sponsored by Volvo Research Foundation on city logistics).

  o Ass.Prof. Alison Conway, the City College of New York City, her research focuses on the area of commercial freight policy and logistics.

• Participated in research seminars of visiting professors from abroad.

• The research group I visited were heavy involved in a large research application during my stay and it was successful, as the research center became a national research center for autonomous vehicles.

• In December, I participated in the ”5th Connected & Autonomous Vehicles Symposium” that the research group arranged together with other research institutions. Very interesting and made good connections with industry regarding future teaching cases. The leading companies and researchers were presenting which also gave ideas around future collaboration in research (see program below with participating research institutions).
Important lessons

Sustainability was also almost an unknown topic among the students and even less the concept of Corporate Social Responsibility. Although I knew that the knowledge an interest in sustainability was much lower, I was surprised of the degree. Sweden is naturally in the forefront but I am also normally at the School of Business, Economics and Law, which has sustainability in its´ mission (“The mission of the School is to develop knowledge and educate creative individuals for the advancement of successful organizations and a sustainable world”) and work actively with this on a broad scope for the last years. Meeting the level of knowledge around sustainability of the students in New York was really to turn back the clock for many years. This only strengthened me in continuing the work at my home university in this issue and it made me realize how world leading we are in Sweden on this topic in research and teaching. We had a world-known professor in transportation from Hofstra University that I had met twice before and we invited him to give a talk at NYU and he started with a joke after my introduction of him: “when I discuss research in sustainability, there are of course Swedes. They are all over and they are leading in this.” This seemed to impress on some of the students. Another thing that I adjusted in my teaching was on the topic European Union and policy, as there was a lack of prior knowledge among the master students.

Academic writing was a skill that the students were not trained in and the fact that many of the students were not native speakers made this issue even more difficult. The American students were very verbal on the classes and in discussions, but that does not necessarily make them good writers of academic reports. Therefore I included this content in my course and focused on giving detailed feedback on the student assignments. It was very rewarding to see how the weakest student in the first assignment, who was very eager to get feedback and asking how to improve, actually wrote the best final paper.
Comparison between the foreign and the home institution

• Student population

The students in the course were a mix of master students and PhD students. This made it a bit difficult to find the proper level in the teaching and hard to understand their prior knowledge. Only one of the students (one of the few that was American of origin) worked full-time during the day and attended NYU on the evenings. In Sweden almost all students study full-time as well but do not pay the high tuition fees that NYU students do. A striking difference was the gender distribution: at NYU about 14 students were men and only one female, while the share of female students is 51% at the School of Business, Economics and Law at GU. Although this was an engineering school, the share of men was still probably much higher than in Sweden.

However, three criteria are used to determine the amount of tuition a student pay and is assessed each semester: 1) School or College within New York University, 2) Program and 3) Credit Hours Enrolled (the level of the courses is not a factor in how students are assessed). To earn a Master of Science degree in Transportation Management a student must complete 30 credits, which are about 10 courses. In addition to completing the required courses, a student must have a 3.0 GPA or better in all graduate courses, in all courses required for a degree, and in all guided studies (readings, projects, theses). A student may not repeat a course toward a degree more than once. Tuition and fees for a Master’s program is about USD 1450 per credit enrolled so 20 credits are about USD 25 450. This sums up to USD 40 000 for a master degree. (Source: [http://www.nyu.edu/about.html](http://www.nyu.edu/about.html))

In Sweden at the School of Business, Economics and Law at GU, we have top-students due to the fact that the admission on grades is very competitive. At NYU, the status is high and a very attractive university, although the students were not stronger than our students at home as I expected. Although to be fair, most students were more mathematical and technology oriented so when topics discussed were in the field of business and when they were to do business analysis, it was sometimes hard for them. Two topics that were challenging for them were their academic writing skills (as I discussed above), and finding and discussing prior research.

• The relation between research and education

At NYU, master students were often research assistants and the limit between master and PhD students were less obvious. The students that were aspiring for a PhD had a chance to show what they could achieve (and supervisors could see those that were not performing as expected early on). Actually some of the participants in the course were PhD students and they had been “sent” there by their supervisor to attend as it was expanding their research scope. Therefore they were not seen in any statistics of the course but they did all their assignments etc., even if they were not enrolled. This resembles more of what we used to have at GU before with “shadow PhD students” who were not formally employed and thus had no real legal rights as other employees.
• **The relation between teacher and student**

This relation was more formal than in Sweden. When I called my co-teacher “Joe” instead of professor Chow, some of the students looked confused. As the classes were usually small, there were room for personal conversations and talk before and after class. Therefore, I as a teacher took more part of the students’ own development if they wanted. Every teacher also had office hours when the students could come and ask questions. The students mostly went to my colleague for comments, but maybe this had to do that I gave more written feedback or possibly they thought that he was in charge of the grading.

• **The institution’s view of breadth versus specialization in education**

The researchers in the institution gave courses in their special field of research and it seemed much more narrow than the courses in Sweden. In Gothenburg, transportation and logistics is a subject both taught and researched at the business school and at University of Chalmers and we collaborate in common research projects. At NYU, each school lived in their own research group and it was not any interaction with for example the Stern School of Business what I could see. This is strength with our more interdisciplinary approach at universities and at funding agencies in Sweden, at least for the last 10 years. The focus at the host institution was very much on the research and the course content were based on the research focus. Interestingly, the host institution had external professionals from the field coming in. We do that at the School of Business, Economics and Law at GU too but mainly as guest lecturers. Here, the professional took on a whole course and was paid a fixed amount of money for it. However, it was based on trust that this professional did a good job and the school did not have much insight in the content of the lectures. This would never happen in Sweden as we have really a more strict structure of course content, examination goals etc. In NYU, the final course syllabus at the master’s programs was decided when the course started and also changed over time for example deadlines for reports etc. This would Swedish students not appreciate. I would prefer a middle-path between our sometimes-ridged structure and the US flexible course plan, both for the students’ and for the teachers’ interest.

• **Competence development for teachers**

NYU has a learning development center although it was not anything that was discussed at the department.

• **Teacher recruitment**

In the group where I was, there were a few persons concentrating in freight transports, and the average age was quite high and also only men. Although the head of the research group said they have been trying to recruit female PhD students, the underrepresentation does not come as a surprise as there were few women at the master level as well. In Sweden, technical universities have to show the representation of men and women for state-owned agencies when research grants
are evaluated. This is probably one benefit of public funded universities and the path towards more equal opportunities is probably advanced quicker than in a private university. Regarding age, the professors are employed for life and can therefore work at a high age. One professor was 75 years old. This may also happen in Sweden too but normally they are Emeritus and therefore do not crowd-out younger aspiring professors. In the US, a tenure professor probably cannot to be fired due to age. My co-teacher Joseph Chow had been recruited only a few years back as he did his PhD and prior research at UC Irvine in California.

- **Pedagogy and its importance**

In Sweden at my University, pedagogy has been strengthening as a topic for university teachers and courses in pedagogy is a requirement for a permanent position. The international accreditation processes we have gone through at the business school (AACSB, Equis and EMBA) and made us the first University in Sweden achieving these all this triple-crown-accreditation, has put more emphasis on pedagogy. Also, more teachers are experimenting with different methods. Joseph and I also wanted to have new element that we had never tried before for example debates on topics in the examination of final papers, but since very few were enrolled and writing about diverse topics, we did not go through with this. However, the interest was mutual between us in developing our teaching. A teacher owned her/his course at NYU, like it used to be at my home department in Sweden before where we have gradually shifted focus away from the course level to the program level. I think this is better for the students’ learning as knowledge is coordinated between courses and also facilitates if a teacher needs to take over a course from a colleague.

- **The working environment**

I have to add this heading since the layout and physical environment was so different from Sweden. The Tandon School building was from the 1960s but some parts were updated. I found the teaching classroom very basic, as in a traditional high school. For the faculty, it was quite crowded but I finally got an office space, even with a window. However, the teaching faculty and researchers came into the office on the days they were lecturing, often twice a week, but spend much time in the lecturing halls. I could sit in my office a whole day without seeing anyone. Much of this was due to the old layout of the school and there were no common spaces to meet, no room for meeting and eating with colleagues and not even a coffee machine. Some staff had tried to push through this but it did not seem to be regarded an important question because nothing had happened. I must say that I missed taking a coffee with other researchers and teachers to discuss and update each other on related issues. A “fika” cannot be underestimated 😊.

Many of the upgrades in the building were often done with donations. This made the distribution of space a bit strange for example a large physics lab was based on donations however in little use while research faculty was quite crowded. These were ongoing discussions especially as a research group was growing. Below is a picture on the school corridors built in the 1960s with little daylight but also how NYU has tried to update with monitors of projects in the world relating to Civil and urban engineering.
All in all, this teaching sabbatical was an outstanding opportunity for me as a teacher and researcher to get input and reflect around my own contributions to students, as well as strengths and weaknesses of different institutional contexts in Sweden and the US. I am very grateful to STINT that provided me with possibilities to stay for a semester and get this experience.

February 2017

Catrin Lammgård