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DEVELOPING ENGINEERING INTERNSHIPS IN FRANCE

ABSTRACT

This article provides a rationale for international internships and gives concrete tips on how to develop them. It surveys works extolling the advantages of professional internships and those proving the value of study abroad. Combining these two into international internships is the focus of a growing number of programs. However, little has been said about how to develop international internships for students. The author specifically addresses France as a destination, explaining the process for obtaining visas for students wishing to make an internship in France part of their education. The author provides suggestions for making contact with French companies and with multinational companies with facilities in France.

KEYWORDS: internship, France, study abroad, visa, international internship, international study, international engineering internship, internships abroad, experiential education, exchange programs, *convention de stage*, professional internships, language study

THE RATIONALE FOR INTERNATIONALIZING EXPERIENTIAL EDUCATION

There has never been a keener need for international internships. Numerous bits of evidence point to the necessity of professional experiences abroad. First, one can look at the increased value placed on internships themselves. Grasgreen (2012) describes how two universities emphasize this. The University of Pittsburgh has a plan that guarantees internship placement to all students who complete intense preparatory work; the stated objective of the program is to raise employment rates for new graduates. At Johnson and Wales University, a newly created fund pays its students a stipend for unpaid internships because the administration “truly believe[s] that there’s a value [in internships] that goes beyond that monetary compensation” (Grasgreen, 2012). Westerberg and Wickersham (2011) advocate for internships, pointing out that internships support several aspects of their institution’s mission statement: “fostering ‘public contribution in a diverse society’ and ‘the integration

of knowledge with experience,' while 'equipping our students to approach the complex problems of the world ethically and thoughtfully.'"

One can also cite the growing emphasis on international experiences. Many institutions have listed internationalization as a main goal in their academic plans. This includes my institution, the University of Rhode Island, which lists global citizenry as the fourth of six institutional goals. Fischer (2010) reports that the University of Minnesota set as one of its strategic goals that 50% of its students study abroad. This makes sense for institutions because a growing body of evidence indicates that going overseas can be a valuable educational experience.¹ One can explore how combining an internship with an international experience creates an even better learning experience than either one would offer separately. Students gain professional experience through an internship, while at the same time they develop global skills through their international stay. We find this in Kinginger's seminal case study of students' language gains while studying abroad (2008). Her study reveals that participants' language gains develop unevenly, depending on a wide array of factors. She suggests that the coherent integration of the study abroad experience into a student's long-term development path might increase linguistic gains. In addition, she emphasizes the important correlation between improved language skills and the creation of "durable contacts with local inhabitants," noting in particular that internships, along with hobbies, service learning, and other activities facilitate these deeper social connections that are predictors of language gains (110).

The same notion of integration, albeit in a different context, underlies the message of Colby, Ehrlich, Sullivan, and Dolle (2011) where they argue for the "intentional integration of liberal learning" with professional education (7). Likewise, for engineering, Katehi's essay (2005) states that "U.S. engineers must become global engineers" because globalization will make "U.S. engineers... a minority culture" that must consequently "be open to different religions, different ways of thinking, and different social values" (152). The daily press as well notes the growing appeal of international internships. Korkki (2012) writes in the *New York Times* that in today's globally interconnected world, "employers are clamoring for global experience" and by consequence "college internships are going global, too." Indeed, international internships should be an integral part of undergraduate education.

¹ See the longitudinal study by Norris & Gillespie (2009) and McKeown's book *The First Time Effect* (2009).

INTERNATIONAL ENGINEERING INTERNSHIPS

An international engineering internship allows students to apply two distinct knowledge sets to solve real-world engineering problems. Students put into practice their engineering knowledge to answer a company's technical questions. Simultaneously, they use their language and cross-cultural skills in order to communicate effectively within another culture. With this in mind, the International Engineering Program (IEP) at the University of Rhode Island (URI) has made international internships the cornerstone of its program.² Because of the IEP's success at preparing engineering students for the global market place,³ many institutions have launched programs that include international internships. As others try to do this, they frequently have questions concerning placing students in internships overseas. This was evident in a live chat hosted by the *Chronicle of Higher Education*.⁴ The development of internships in France, as shown during a lively exchange at the Fifteenth Annual Colloquium on International Engineering Education, seems to elicit more questions than for internships in other countries. There is a need for facilitating internships in France. The French economy consistently ranks as one of the top ten worldwide. In many fields, French engineering companies are world leaders. In addition, throughout the US, French is one of the most frequently taught languages and one of the most desired languages.⁵ For all these reasons, the present article aims to explain how to develop international internships in France. Having served as the director of the French International

² The IEP is a five-year, dual-degree program in which students simultaneously major in an engineering discipline and major in a language. The IEP began in 1987 with German as the only language option. French was added in 1996 followed by Spanish in 1998. Chinese was added in 2006. In addition to preparing their two degrees, during their fourth year in the program, IEP students are required to intern for six months with a company where the language of study is spoken.

³ In 2012, the IEP won the Heiskell Award for International Innovation in Study Abroad. The IEP was the 2011 winner of NAFSA's Senator Paul Simon Spotlight Award for Campus Internationalization. In 1992, the IEP was granted the ABET Educational Innovation Award.

⁴ The live chat took place on 23 May 2012 and was entitled "Innovators in Internationalization: The University of Rhode Island."

⁵ Note, for instance, that the *2010 NRCCUA Cooperative Research Report for ACTFL* shows that when asked what language they would most be interested in studying if they had any option available to them, high school students across the country indicated that French was the second most desired language of study, very nearly tying Spanish for first place, 16.5% compared to 16.6% of respondents (National Resource Center).

Engineering Program at URI, I share in the following pages some of my experiences in order to help others develop meaningful international internship opportunities for their students.

INITIATING CONTACT WITH COMPANIES IN FRANCE

As one begins to build international engineering internships, it is important to remember that there are numerous people and organizations that can provide assistance. The French consulates, though not placement agencies, can help make contact with companies. When I first began placing students in internships, the consulate recommended attending a job fair they used to organize, the Forum USA. This provided a great opportunity to meet representatives of French multinational companies. Presenting the French IEP to the companies allowed me to give them an overview of it, explain its advantages for them, and then ask if they would be interested in accepting our students as interns. Some companies immediately recognized the value of the program. Others were more hesitant. Now, job fairs generally target individual applicants, not people advocating academic programs. In these situations, it sometimes helped to say that I would be traveling to France and would like to set up a meeting to discuss the program further. This way, in France people more closely tied to university relations could hear about the program. The Forum USA no longer exists, but there are similar job fairs. MIT's European Career Fair, held annually toward the end of January, offers a great venue for meeting with companies likely to place students in internships. The Forum Franco-Allemand, held in Strasbourg in November, is another job fair. The Colloquium on International Engineering Education provides a third opportunity to discover companies and present one's international program.

In addition to the French consulate, there are other connections that can help to build a network of French internship opportunities. A great first step is to begin with colleagues at one's own campus, since professors and deans often work with multinational companies. Enlisting their help can provide contact information for specific people who can then advocate for the program. It was through one such contact that my program was able to place its first student at Air Liquide in Jouy-en-Josas, France. A chemical engineering professor has worked with an engineer at Air Liquide in research on computer simulations of chemical separation processes. One of his research assistants was a student getting ready for his year overseas and he suggested the student as a likely candidate for an internship with the French company. I sent the Air Liquide researcher an email explaining our program and presenting the student. He emailed back with a description of a possible internship. It matched

our requirements and the student's interests, and that first internship launched our relationship with the company. Since 2007, we have placed four students with Air Liquide. The Dean of the College of Engineering helped to arrange the contacts that led to our first intern at Toray Films Europe in Lyon, France. Because my institution's College of Engineering had been working with Toray North America on some domestic projects, he approached the North American CEO about the possibility of having a student intern at Toray's facility in France. They arranged for a student to intern over the summer with Toray in North America and then after her semester of study at the Université de Technologie de Compiègne (UTC), she would begin her six-month internship with the Lyon branch of the company, Toray Films Europe. This worked out well for everyone involved. This same relationship with Toray led to the first placement of a student from our French International Business Program who did a six-month marketing internship with Toray in Lyon.

Colleagues at a partner institution can also be invaluable. For example, UTC has an internship office with personnel dedicated to assisting their international students in finding internships in France. This is a great resource, though some institutions prefer to work directly with companies rather than through an intermediary. Direct contact with companies is important because internships can be seen as one part, and a very important part, of a long-term relationship with a company.

A model that has worked well is to emphasize longer-term human resource development through our program. We suggest partnering with a local branch of a multinational company to arrange short-term domestic internships that are followed later by the six-month international experience. This can be achieved by either of the two strategies detailed above. Other potentially fruitful avenues of inquiry include local chambers of commerce, French-American business groups, or a state's economic development agency. Often, it is insufficient to contact the "right" company; one must contact the right person at the right company. For that reason, patience and persistence are necessary as one politely tries connecting with different people in different divisions of a company.

PLACING STUDENTS IN INTERNSHIPS IN FRANCE

Making the corporate contacts is an important step toward securing internships, but it is not the final step. Given that the company ultimately decides which students to accept as interns, the last steps take place between the company and the student. My role is to serve as a sort of matchmaker. I initiate contact with the company, present the program to the company,

explain the students' preparation, and then put the student in contact with a representative of the company. In the past, this usually meant sending the student's CV to a human resources employee who would then find an appropriate placement. More recently, human resource representatives require that students apply online, but they ask me to notify them when they apply so that they can ensure proper follow-up on the application. Because of the move to online applications, students often ask if they can apply to any company rather than just the ones with which I have developed contacts. Certainly, students may find internships on their own. Whether it is through family contacts, previous professional experience, or just an online application, the students are welcome to try. However, until now no student has ever been successful with an online application to a company with which we have not already had contact. I suspect that an electronic application received out of the blue from an American student is not considered seriously. The human resource department wants to know that the student's program has been fully vetted and that the internship experience in France is part of the student's curriculum. For that reason, the preliminary contact must be established prior to the online application.

In order for students to apply, they need to do the following in French: read employment advertisements, write a CV, craft a cover letter, and engage in a phone interview. The preparation is enormous. In fact, in our program, it takes at least three full years for the students to get to this point. Of these requirements, the CV is the most important. Two classes in our French curriculum require writing a CV in the French format. A French-style CV includes a picture as well as other information never included on an American resume, such as age, marital status, and hobbies. In addition, I work closely with the students on finalizing their CV, targeting it for their specific career paths. Students should strive to convey a sense of what the French call the "projet professionnel." This means that students should have a professional objective stated on their CV; the experiences listed on the CV should show a progression toward that goal. Unfortunately, this important aspect of the CV is also one that is difficult for American students to demonstrate. In France, internships are an integral part of companies' human resource departments and of engineering schools' curricula. For example, UTC requires three internships over their five-year program. Moreover, the French government provides tax breaks for companies offering internships.

In the US, internships are offered less consistently, and it is common for a student's summer work experience to be waiting tables at a restaurant or

lifeguarding at a pool. Thus, when a French company sees an American CV, they are less likely to discern the “projet professionnel” and may conclude that the student lacks purpose. Consequently, I exhort students to seek out internship experiences and research assistantships as summer employment before their overseas internship. This gives them the experience needed to demonstrate their commitment to the “projet professionnel.”

Being able to read job announcements is also important. For the companies that require an online application for internships, I generally read through their posted openings and select the ones that seem to fit a student’s preparation and interests. However, I rarely know the full extent of the student’s academic training, so the student must be able to read the announcement in order to make sure he or she has the proper qualifications. In addition, the wording of the internship description gives students the vocabulary they need if they write a “lettre de motivation” or cover letter. Not all companies require this, but when they do, it is an opportunity for a student to explain why he or she is a good candidate for the internship at that company. In the cover letter, students need to present why they are good for the job, explain why they like the company, and describe what they can offer the company.

Without a doubt, the most dreaded part of the process is the interview. The companies contact the student directly, and at that point the student is really on his or her own. However, if the student gets to the interview stage, it means that the company seriously wants to hire him or her as an intern. It is also important to remind students of the adage, “A bird in hand is worth two in the bush.” In other words, accept the first offer. It has happened that students have turned down a first offer, thinking that they had a promising opportunity with a bigger company in a more exciting location. This causes many problems because the company may have already gone out of its way to promote the student’s candidacy. In the program, we guarantee student placement on internships, so I tell students that once they have received an offer, I have fulfilled my commitment. If they are picky, they are truly on their own.

THE DOCUMENTS NEEDED TO INTERN IN FRANCE

The paperwork involved in placing a student in an internship in France is complicated. There are two types of documentation but the two intertwine in complex ways that make the process challenging. There is the paperwork related to the internship in France and there is the paperwork associated with the visa for entry into France. The internship agreement is called the *convention de stage* and it is an official French legal document that affords the students

invaluable protections. It is basically an agreement among three entities: the student, the company, and the educational institution. The *convention de stage* can be processed in two different ways, depending on which educational institution will sign the document. If the home institution signs, then the French consulate also needs to sign the document in order to certify that the school is indeed a recognized educational institution. In addition, the internship agreement needs to be approved by the Direction Départementale du Travail, de l'Emploi, et de la Formation Professionnelle (DDTEFP). Because this last step can cause unexpected delays, most French companies prefer that a French school sign the *convention de stage*. This simplifies the process, but requires an exchange partner in France willing to sign the document. The visa procedure for the student depends on which institution signs the *convention de stage* and also on whether the student will study abroad in addition to the internship. The simplest path is for the student to combine study abroad with an internship that is signed by a French school. In this case, the student needs to receive an acceptance letter from the French school that includes the full date range for both the studies and the internship. The student can then go to the consulate and get a student visa for the entire period.

If the student combines study abroad and an internship but the *convention de stage* is signed by the home institution, then there are two options. The better of the two is for the student to have a fully signed *convention de stage* before going to the consulate to get the visa for the entire stay in France. The student supplies the letter of acceptance from the partner institution and the *convention de stage* to the visa official in the consulate. The visa is then valid for the entire duration. While ideal, this is usually difficult to achieve because of the time it takes for the *convention de stage* to get fully signed. It has to be signed by the company, then sent to the home university where a university official and the student both sign, and then to the consulate where an official signs to confirm that the academic institution is indeed a recognized one, and then back to France for approval by the DDTEFP. After that last signature the student can take it to the consulate for the visa. The second option is not any easier, but it is more likely to occur. In this case, the student gets two visas in two steps. With the acceptance letter from the host institution in hand, the student can get the visa for the study abroad portion of the trip. While studying in France, the company, the student, the home institution, and the consulate can all sign the *convention de stage*. After approval by the DDTEFP, the student can then extend the visa. This can be done at a *préfecture* in France, in a French consulate in another European country, or by returning to the US to have it done at a French consulate in the States.

If the student is only going to intern in France, he or she must have a fully signed *convention de stage* and then must apply for a visa for an internship. In this case as well, for the *convention de stage* to be fully signed means that the company, the student, the home institution, and the consulate have all signed it, and that the DDTEFP has approved it. The consulate has a special application for this type of visa. In all steps of the visa process, it is imperative to remember three things. First, in legal terms an internship in France is not work. Second, an intern is not an employee. Third, the internship stipend is not considered salary. The internship is an educational experience that is part of the student's curriculum. As such, the internship is a continuation of the student's studies.

REMUNERATION AND HOUSING

All internships in France that involve a *convention de stage* are remunerated. The remuneration is not a salary, but rather a stipend to defray living expenses. This critical distinction bears repeating because interns are not salaried workers and therefore they do not need a work visa. As of 2013, the legal minimum an organization is required to disburse as a stipend to remunerate an intern is 436 euros per month for any internship longer than two months. However, most of the interns receive a stipend that exceeds this minimum amount. The average monthly stipend is roughly 1000 euros, an amount that allows students to live fairly comfortably during their internship. There are sometimes other forms of compensation granted to the interns. Companies often allow interns to eat their midday meal at the company cafeteria free of charge. Sometimes companies pay for public transportation passes, allowing interns to commute for free. Housing expenses are almost always borne completely by the student. Occasionally, companies reimburse housing expenses, but when this is the case it usually means that the monthly stipend is closer to the minimum legal amount.

Interns are responsible for finding their own housing. Only one time has a student's housing been arranged by the company. The student interned at a factory in a very small town, and the company owned a house close to the factory intended for the interns. Finding housing in France can be a big challenge, and prior to their departure, students (and their parents) tremble at the thought of securing it. However, once students have spent a semester in France, they manage to make the arrangements. One way to do this is through the dorm system for interns and young workers, le Foyer des jeunes travailleurs. Other strategies that students have used included websites such as *seloger.com*, *appartager.com*, or *craigslist.fr*.

MONITORING THE INTERNSHIP EXPERIENCE

Once they have begun their internship, it is important to ensure that the internship is a positive, rewarding experience, both for the student and for the company. During the internship, we require students to write two reports a month in French about the experience. The goal of the reports is to show familiarity and interaction with the local culture, to demonstrate awareness of cultural differences during the internship, to reflect on the significance of the internship for personal growth, and to use French to communicate. Students write half the reports on their professional experiences and the other half on cultural experiences. Students focus each report on one of these two topics in order to go into greater depth. Some examples of professional topics include: descriptions of the internship topic, analysis of the project's goals and difficulties, workplace organization, technical vocabulary, description of the company, assessment of its industry status and its economic impact, and also perceptions of cultural differences as they apply to the workplace. The other half must deal with broader cultural aspects of the internship experience. Some possible cultural topics include an overview of the local culture's perception of Americans and American politics, descriptions of political events in France, presentations of events of local interest (festivals, historical monuments, etc.), discussion of new French films, and anything else proving the intern's interactions with the local people and culture. Recently, while one student interned with Rhodia, the company merged with Solvay, a Belgian company. She attended some of the union meetings relating to the merger and wrote a report that included her observations of the process, along with images of union posters relating to the merger. I tell students that within the reports they will undoubtedly engage in description and narration (here is what I saw, here is what I did), but that they must also go beyond describing and narrating and show some reflection and analysis. They should think of it as being along the lines of "Here is what I saw and did, and this is what I think it shows about the local culture."

One must also receive feedback from the supervisor. It is important to make sure that supervisors find the interns' contributions to be positive and rewarding. I generally contact the supervisor twice, once just a few weeks into the internship and then another time halfway through the internship. I have never received any strongly negative comments from the supervisors. Occasionally, they say that a student needs to be more active in getting information or that the student needs to be more confident in presenting information, but those are normal human resource development tips for many employees.

CONCLUSION

Overall, the internship experience for students in the program has been successful. Students apply their engineering knowledge in authentic work environments, and use their French skills to communicate with their colleagues. In addition, they experience business culture, working within large, multinational companies. Upon graduation, students readily find employment; in fact, so far the International Engineering Program at URI has a nearly 100% job placement rate six months after graduation. This shows that employers value the experiential learning obtained from the engineering internships in France. Students return from their internship with advanced language skills. Furthermore, they participate in classroom discussions at an advanced level, inspiring their classmates to strive for higher achievement.

Student success has a direct impact on program success. Our returnees are eager to share their experiences with others, volunteering to talk to freshman engineering students about the program and to travel to their high schools to promote the program. Developing the internships provides numerous benefits even though placing students in internships is a process with a steep learning curve. By sharing this information on the French International Engineering Program, the process will be easier for others. The advantages will hopefully inspire others to launch similar programs.

WORKS CITED

- Colby, A., Ehrlich, T., Sullivan, W. M., & Dolle, J. R. (2011). *Rethinking undergraduate business education: Liberal learning for the profession*. San Francisco: Jossey-Bass.
- Fischer, K. (2010, March 28). U. of Minnesota integrates study abroad into the curriculum. *Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/U-of-Minnesota-Integrates/64859/>
- Grasgreen, A. (2012, October 11). Internships for all. *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/news/2012/10/11/pitt-johnson-wales-make-big-internship-promises>
- Innovators in internationalization: The University of Rhode Island. (2012, May 16). Live Chat. *Chronicle of Higher Education*. Sigrid Berka and John Grandin (guests). Karin Fischer (moderator). Retrieved from <http://chronicle.com/article/Innovators-in/131874/>

- Katehi, L. (2005). The global engineer. In *National Academy of Engineering, Educating the Engineer of 2020: Adapting engineering education to the new century*, (pp. 151–55). Washington, DC: National Academies.
- Kinging, C. (2008). Language learning in study abroad: Case studies of Americans in France. *Modern Language Journal*, 92, Winter 2008 Supplement, 1–124.
- Korkki, P. (2012, March 25). Overseas internships can benefit, for a price. *New York Times*. Lexis-Nexis Academic. Retrieved Oct 25, 2012 from http://www.nytimes.com/2012/03/25/jobs/workstation-overseas-internships-can-benefit-for-a-price.html?_r=0
- McKeown, J. (2009). *The first time effect: The impact of study abroad on college student intellectual development*. Albany: SUNY Press.
- NAE (National Academy of Engineering). (2005). *Educating the engineer of 2020: Adapting engineering education to the new century*. Washington, DC: National Academies.
- National Resource Center for College and University Admissions. (2010). *2010 NRCCUA cooperative research report for ACTFL*. Available from <http://www.actfl.org/sites/default/files/ACTFLReport2010FINAL.pdf>
- Norris, E. M., & Gillespie, J. (2009, September). How study abroad shapes global careers: Evidence from the United States. *Journal of Studies in International Education*, 13(3), 382–97.
- Westerberg, C., & Wickersham, C. (2011, April 24). Internships have value, whether or not students are paid. *Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Internships-Have-Value/127231/>