

# Campus Thailand – a new strategy to meet new demands

Roy Andersson and Håkan Alm

Jönköping University and Asian Institute of Technology

**Abstract—** Since the early part of the new millennium the student application rate has declined in the field of engineering. At the same time the demand from companies has changed to more general degrees that also include international experience. As the world becomes evermore internationalized, companies need employees who can operate in the international market with insights into business culture across the globe with knowledge of sustainable development. All this was an enabler to start to think “out of the box” in order to design a new program. The name of the program is ‘International Business Engineering’, a three-year bachelor’s program, 180 ECTS. It includes main subjects such as business, quality, logistics, operations research and management. A mix that provides overall knowledge, catering to the needs in international careers. The program embraces a multi-national and multi-cultural outlook and an education that enables work for a sustainable development, integrated in the global economy. It starts with three semesters in Sweden. The fourth semester is located to Campus Thailand and the last semester gives the students an opportunity to do their thesis work in a number of countries around the world.

It commenced in 2009 with 40 students, only half of which were Swedish. All courses are given in English by teachers from Sweden, Thailand, Cuba, South Africa etc. This first year there were 5 000 applicants from 80 countries. The courses often include group work, which also gives the students insights into and knowledge of cultural differences.

Campus Thailand is located at the Asian Institute of Technology (AIT). A semester there makes the students part of a multi-cultural student environment. AIT has become a leading regional institution and is working towards technological and sustainable development in Asia and the area around the Pacific. CSR Asia is involved at AIT, teaching the students and performing field trips for the students in the South Asian region, including Cambodia, Myanmar, Laos, Thailand and more. Around 70 percent of all students and staff are international with over 40 nationalities represented, giving important international contacts for the future. Cooperation with the Thai-Swedish Chamber of Commerce and its many member companies enables the students to carry out internships with global companies such as SAS, ABB, Volvo, Electrolux and Husqvarna.

To date (2013), 70 students have studied in Thailand and over 40 students have performed an internship in companies in Bangkok. From the first batch of students, two are now employed in Bangkok. Currently, the program has ten full-paying fee students.

**Keywords:** *study abroad, teaching, higher education, bachelor program design, Thailand, Sweden.*

## I. INTRODUCTION

We are living through times of rapid change. Change is all around us, and the rate of change is increasing [1]. In the early part of the new millennium the student application rate declined in the field of engineering. At the same time the demands from companies, students and society has increased and changed. One demand is that the companies as well as the students need more general degrees. Students need to be able to deal with business as well as engineering issues, where main subjects like business, quality, logistics, operations research and management are needed. A mix that provides broad overall knowledge and includes international experience. As the world becomes evermore internationalized, companies need employees who can operate in the international market with insights into business culture across the globe incorporating knowledge of sustainable development. A Swedish degree with parts of the education abroad with studies and / or practical working experience (e.g. internship) is the most appealing to the employers, especially the latter [1].

The conclusion is that to study abroad and international experience is beneficial when applying for a job as the employer signal that they need the students to have international working experience [2]. Therefore a more clear focus on internships carried out abroad is recommended. Students doing internships increase their employability. Therefore a growing number of students doing international internships will increase the quality of higher education [3].

The society as well as the Universities demand increased student mobility, internationalization nowadays is an important indicator in global rankings, so it is a political as well as University priority issue [26]. As members of the Bologna process, Sweden shares the target that at least 20 per cent of those graduating in 2020 should have been on a study or training period abroad. From a national point of view, student mobility has both cultural and economic value: Cultural competence, linguistic skills, international social networks and impulses from abroad are crucial to a country’s cultural and economic development [4]. Mobility still reaches only a minority of higher education students, in spite of structural reforms to make systems more compatible, such as the Bologna process. However, in the European Union, international student mobility as part of the home degree has steadily increased in the past years [5]. The demands from the

students have also increased.

Today the students would like to practice the knowledge directly in the companies' environment and doing Internship as a part of the program as well as getting experience from different cultures. Nordic Graduate Survey from 2007 identified the two most wide spread motives among Swedish students: interest in experiencing different cultures, and to live and study in a foreign environment. Moreover, today the students do not rank academics the highest. Instead, more personal and social aspects of going abroad, such as making friends, language learning, cultural understanding and personal skills, are seen as most beneficial [6], [7] and [24]. The most important motives for studying abroad were according to the author Rodrigues [8] *“living and studying in another environment and personal development. Acquiring language skills was also considered important”*. All the above were motivators to start thinking “out of the box” in order to design a new program.

## II. MEET NEW DEMANDS

In order to try to compromise and prioritize the demands from the students, companies and society a number of questions came up.

- How should the mix of courses be constructed?
- How do we give the students experience and knowledge by doing Internship etc.?
- How can we motivate students to go abroad?
- What countries and universities are important to collaborate with so that the students and the companies get value?

## III. MOTIVATE STUDENTS

Funding and language are less important barriers for Swedish students than for many other countries [6]. The top three motives for the students are: getting to know other countries or culture, improving language skills, and gaining new perspectives on studies [8], [9].

Living and Learning – Exchange Studies Abroad is a report from a cooperation project between the Centre for International Mobility (CIMO) in Finland, the Swedish Council for Higher Education and the Norwegian Centre for International Cooperation in Education (SIU), to understand and to identify factors that are important as motivators and barriers to study abroad [9]. The aims were to increase understanding of the driving forces of student mobility in Sweden. The main issues or motivators, according to the report were:

- students should not be delayed in studies or miss parts of the studies at home.
- teachers and university staff must encourage and motivate the students.
- Focus on and information about future career, the academic and educational values of studies abroad.

On the other hand these are barriers or obstacles that can be dealt with at the university. Teachers, students and international coordinators are important when aiming to overcome academic barriers to mobility.

In order to motivate the students following was done:

- From the very first day the students were briefed and guided by resident teachers and staff, but also given assignments in order to acquaintance themselves with the area, but also to build confidence that they can manage on their own.
- Campus Thailand has its own homepage with useful background information and ongoing features of the development.
- When abroad the students were blogging with fellow students back home sharing experiences and answering questions.
- The students did not go abroad until the latter part of year two, but were informed throughout the education (and of course before even applying to the program ) about what was to come.
- The students were shown facts about how the companies seek this competence.
- The students were not delayed and were given two opportunities to study abroad. Firstly in the second semester of year two and then again on the second semester of year three to do their thesis as well as taking two elective courses.

## IV. COLLABORATION PARTNERS

According to the report [9] *“we nevertheless see a tendency for those who go to North America, Australia or New Zealand to report more benefits overall than those who go to other destinations”*. The main explanation for this is probably the simple fact that these countries are English speaking, and that it is therefore relatively easy for Nordic students to manage and succeed, in educational settings but also socially on and off campus. The exception to this picture is ‘better understanding of cultural differences’, a benefit which, understandably, students who go outside Europe and the Anglo- American world rate higher according to Living and Learning – Exchange Studies Abroad [9].

Asia's economical and political influence in the world is increasing. If the growth continues with the same intensity as the last few decade, Asia will amount to more than half of the worlds total GNP, trade and investments and will enjoy wide spread wealth. According to IMF (International Monetary Fund) GNP in Asia will increase six percent 2014 and increase in all the countries in Asia [25]. Further, The total population in Asia is expected to grow by one third by 2050. At the same time the region is plagued by ongoing conflicts, severe poverty and undemocratic governance, poor respect for human rights and serious environmental issues. The development in the world for the next century will therefore be tightly entwined with the development in Asia. It is therefore in

Sweden's best interest to intensify the mutual cooperation with the Asian countries. Efforts are being made in all aspects. Swedish trade with Asia Pacific amounts to 10 percent of the total foreign trade, Foreign ministry [10].

We choose Thailand as the companies have since long understood its importance as an industry and trading hub and students know that most major international businesses are active there and as many Swedes has been to Thailand for holidays (roughly 4-6% of our population each year) felt comfortable to also go there to study.

#### V. AIT

The Asian Institute of Technology, AIT, promotes technological change and sustainable development in the Asian-Pacific region through higher education, research and outreach. The University was founded in 1959 and is situated about 40 km north of Bangkok, Thailand. A leading regional postgraduate institution actively working with public and private sector partners throughout the region and with some of the top universities in the world. 2000 students from 40 countries study here. AIT embraces a multinational and multicultural outlook. All courses are taught in English. The goal is to offer students an education that enables work for a sustainable development and its integration in the global economy. Besides the usual labs and academic buildings, there are study rooms, dorms, hotel and conference center, sports facilities, golf course and several restaurants and cafés. There is also a library with over 230 000 books and 830 magazines (both printed and digital). All serve to fulfill the AIT mission:

To develop highly qualified and committed professionals who play leading roles in the region's sustainable development and its integration into the global economy. AIT consists of School of Engineering and Technology, School Of Management, School of Energy and Resource Development [11].

#### VI. THE PROGRAM INTERNATIONAL BUSINESS ENGINEERING

The new program took off in 2009, a degree of Bachelor of Science with a major in Industrial Engineering – with specialization in International Business Engineering.

All courses are given in English, by teachers from Sweden, Thailand, South Africa, Cuba, The Netherlands and Scotland. The course contents have been developed through collaboration with the business sphere, and the cooperation throughout the education.

Subjects such as mathematics, business, quality, logistics, leadership, operation research and management courses, a mix that provides overall knowledge. All the courses amount to 7,5 ECTS credits, except the thesis work that consist of 15 ECTS credits, see figure 1.

The students do group work in the courses, which also gives them insights into and knowledge of cultural differences

between countries. Since the classmates are from all over the world, they get that kind of knowledge as well. A mix of courses provides a whole. Prof. Jan Van Vuuren from the Stellenbosch University, South Africa, who has taught operations research said *"The class has a truly cosmopolitan composition - there are students from South America, the Middle East, the Far East, Africa, North America and, of course, from Europe. This gives quite interesting class discussions and very different perspectives on things"*. Moreover he said it's a *"modern approach to education", "hands-on liaison with industry in both teaching and research activities" and "a quest for excellence"*.

The program starts with three semesters in Sweden. The fourth semester is at the Asian Institute of Technology, AIT. Lecturers from Sweden, Thailand and the whole world teach at AIT.

#### VII. COOPERATION WITH THE THAI-SWEDISH CHAMBER OF COMMERCE

The Swedish Chamber of Commerce, with many Swedish and Thai member companies facilitate for the students to be given the opportunity to do summer internships.

Internship programs for students at various levels in different sectors. The student shall during the course acquire knowledge and abilities required to do the following: Articulate and apply principles learned in the internship, Complete assignments that encourage in-depth reflection, Develop work competencies for a specific profession and explore career options, and gain general work experience. The course contains three parts: reflective diary journal, written technical report (based on the diary journal) and an oral presentation. A supervisor from the company and the examiner from the university will have continuous discussions with the student. Every week the student must submit the reflective diary journal to the examiner/supervisor. The student must reflect over lessons learned and apply knowledge from previous courses [12],[13].

#### VIII. INTERNATIONAL INTERNSHIP

According to the president of Thai-Swedish Chamber of Commerce, also Husqvarna Thailand [2] *'It's so important that Swedish students get international work experience and Asia is the fastest growing market in the world. This also gives us as employers the opportunity to work with talented young potential future staff'*

As Elin, a student, put it *'Memories for life and a great opportunity to develop on so many levels and in so many ways'* [14]

The first Thursday of each month the students network with members of the Thai-Swedish Chamber of Commerce in

Bangkok at the monthly networking event. The idea is to give the students opportunity to make new contacts and find internships for the spring/summer.

After the semester in Thailand, one semester in Sweden is all that remains, before a final semester of thesis writing somewhere in the world. The university has cooperation partners in China, Brazil, Cuba, South Africa, France and Thailand.

It crucial that international students should not only ‘live in a bubble’ with other international students, therefore we mix our students with other local and international students. Even when Swedish teachers teach the Swedish students the aim is to have at least half the class consisting of AIT students. The students also have opportunity to choose at least 20 different courses from the fields of management, business and engineering as elective courses. One of the teacher’s said [15]: *“As the students stay here in Bangkok, they learn to live in a world where everything can’t be taken for granted. Things work differently here, and they have to learn to befriend people of other nationalities, which is clearly beneficial to them.”*

The compulsory course CSR(Corporate Social Responsibility) provides students with a thorough understanding of the importance of the companies CSR work in order to achieve sustainable development. Since CSR thinking is important and will become increasingly important in the future for business, we have placed the CSR course in Southeast Asia. This is so that the students with their own eyes shall see how it works there. The course includes visits to major corporations to see their CSR work. The students have with their own eyes seen child labor in Cambodia.

CSR Asia is an organization based at and in partnership with AIT, teaching the students and providing field trips for the students in the South Asian region, including Cambodia, Myanmar, Laos, Thailand and more.

#### IX. INTERNATIONAL BUSINESS ENGINEERING

Below, see the layout for the IBE Program and its courses from one through to year three.

### International Business Engineering

First Year: Start in late August (the first batch of students)

2009		2010	
Period 1	Period 2	Period 3	Period 4
Introduction to Industrial Engineering and Scientific method	Quality and Management Systems	Industrial Business Economics I	Applied Calculus
Linear Algebra	Calculus	Engineering Statistics	Statistical Quality Control

#### Second Year

2010		2011 Thailand	
Period 1	Period 2	Period 3	Period 4
Project Management	International Production Engineering	Design of Experiments or Elective Course	Logistics I
Operations Research I	Operations Research II	Elective Course at AIT	Corporate Social Responsibility

#### Third Year

2011		2012 Abroad or in Sweden	
Period 1	Period 2	Period 3	Period 4
Industrial Business Economics II	Industrial Business Economics III	Thesis work 15 ECTS	
Change Management and Psychology	Logistics II	Elective Course	Elective Course or Internship

Fig. 1. The study program syllabus for the first batch of students

When the program started in 2009 it was a popular program, there were about 5000 applicants from 80 countries. The first year it enrolled about 40 students and we tried to achieve a mix where about half was Swedish and half come from other parts of the world, see figure 2.

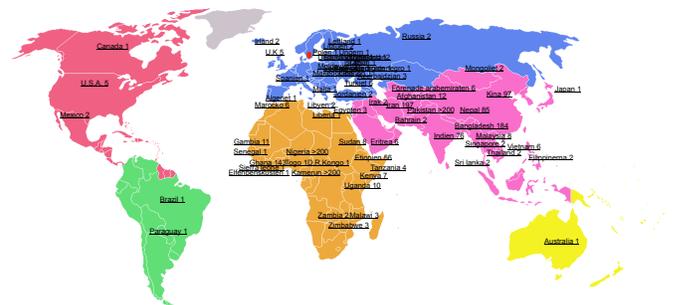


Fig. 2. 5000 applicants from 80 countries the first year

For more information about the aim and the purpose of the program, see study program syllabus ([www.hb.se](http://www.hb.se)).

## X. OUTCOME

To date (2013), over 150 students has joined the program, 70 students have studied in Thailand. Only two students have returned home before schedule, one of them for family reasons and one was sent home. Over 40 students have done internship at companies in Bangkok. From the first batch of students, two are now employed in Bangkok. Currently, the program has ten full-paying fee students (not scholarship).

Cooperation with the Thai-Swedish Chamber of Commerce and its many member companies enables the students to carry out internships with global companies such as SAS, ABB, Volvo, Electrolux and Husqvarna etc. It has also given the students the opportunity to network with the Thai and international business community in the many Events arranged by the Thai-Swedish and other chambers of commerce in Thailand and sometimes even in other countries in the region [2].

## XI. FUTURE

We always strive to be resilient in our work. If we are resilient we will be capable of withstanding and recovering quickly from unexpected disruptions and changes [16].

According to Sheffi [17] resilience measures the ability and speed at which the process can return to their normal performance following a disruption. To be resilient in your organization you have to strive to create redundancy, robustness as well as flexibility. One way to do that is to collaborate with many partners [18].

One example of this is during the 2011 Flooding disaster. Our students and staff arrived while the water had just resided and saw the enormous damages this had created. Despite all this Thailand including AIT was quickly back on its feet and disruptions were minimal. The creativity and energy to overcome showed us that resilience is built-in to the Thai and Asian culture. Five days after we were got the news the program director traveled to Thailand, arranged temporary classrooms and new apartments for the students.

A threat to the longevity of any undertaking can also be a new academic leader with ambition and eagerness to create new concepts, but with lack of experience and all the facts, cancelling a successful project.

Neighboring Vietnam and Laos are hot and interesting economies as well as Indonesia, that some predict will be 'the next big thing' in Asia.

### A. Indonesia

Indonesia has the largest economy in Southeast Asia. In the year 2012, Indonesia edged out India to emerge as second fastest growing G-20 major economy just behind China [19].

### B. Laos

The World Bank has forecast eight per cent gross domestic product (GDP) growth for Laos in 2013, driven mainly by mining and hydropower projects, despite the country's recent financial difficulties. [19].

### C. Vietnam

The economy of Vietnam is a developing planned economy and market economy. with a potential annual growth rate of about 10% in real dollar terms, which would increase the size of the economy to 70% of the size of the UK economy by 2050. Vietnam has been named among the Next Eleven and CIVETS countries [20]

Indonesia, Vietnam and Laos are countries where we actively are networking and building on further cooperation

### D. Campus Thailand

Campus Thailand is an international campus, where students from all over the world meet. Here, the students have access to large green areas, several restaurants and cafés and a wide range of sports activities. Campus Thailand is part of AIT (Asian Institute of Technology). Choosing to study a semester at Campus Thailand will make students part of a multicultural student environment. On campus there are over 40 different nationalities, giving the education an extra dimension and giving a chance to make of new friends, maybe even making important international contacts for the future.

A semester there makes the students part of a multi-cultural student environment Around 70 percent of all students and staff are international. AIT has become a leading regional institution and is working towards technological and sustainable development in the Asia Pacific area [11].

### E. Expanding in the Southeast Asian region

We are currently starting cooperating with Swedish Business Association [22] and Bandung Institute of Technology, Indonesia in parallel with Swedish Business Association [23] and Doi Dung University, Laos. Also in Bangkok we are currently in negotiations with Rajamangala University of Technology, Bangkok University and Rangsit University as a complement to AIT in order to build in resilience and flexibility. This also means that besides Business and Engineering fields we also have to Medical and tourism courses etc.

### F. Expanding the student base from Nordic Universities

Another way to make this more resilient and to give us a better position in negotiations is to team up with partner universities, expanding the volume of students. Next year the students from the Logistics and Management Program (Jönköping University, School of Engineering) are going to have opportunity to study a year at Campus Thailand, including the opportunity to do internship.

Also to do this concept more resilient, five more universities in the Nordic Countries are potential stake holders.

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AUTHORS

Author 1 Address	Dr. Roy Andersson Jönköping University School of Engineering Gjuterigatan 5, 55318 Jönköping, Sweden
Email	roy.andersson@jth.hj.se
Author 2 Address	Håkan Alm, Doctoral Candidate Asian Institute of Technology, P.O. Box 4, Klong Luang, Pathumthani 12120, Thailand
Email	Hakan@Alm.bz