

### **KNOWLEDGE, INSPIRATION AND STRONG COMPETENCIES FOR YOUR COMPANY!**

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### ENGINEERING, TECHNOLOGY AND BUSINESS PROGRAMMES

#### **VIA University College**

Within VIA University College, all professional bachelor degrees in Region Central Jutland in the Western part of Denmark have been joined together making the institution Denmark's largest University College.

It is VIA's ambition to change the mindset in terms of education and institutions of higher education. We do this by modernising our current study programmes and by developing new programmes in order to provide our students with the experience of an everyday life where theory and practice work together across disciplines. At VIA, we call it educating for the workplaces of the future.

VIA University College has a total of almost 17,000 students divided on the 35 study programmes, which are offered at VIA. 17 of these study programmes are within engineering, technology and business, which encompass almost 3,500 students. Most of these study programmes within engineering, technology and business are offered at Campus Horsens, but some of them are also offered in Aarhus, Herning and Holstebro.

#### Programmes of the future

VIA is committed to constantly ensuring that our programmes meet the requirements of the future. Therefore, we strive to improve our own potential as an institution of higher education through the development and exploration of new fields within technology and business.

#### Player within the international field of education

VIA is a significant player within the international field of education. More than half of our 3,500 students within engineering, technology and business are foreign and in light of the increased globalisation, there is a need for increasing the international focus on Danish study programmes. This also gives Danish companies a unique opportunity to get an extra resource through the students, who have a fair amount of knowledge on foreign markets.





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# **CLOSE TO THE BUSINESS COMMUNITIES**

The study programmes are conducted and developed in close cooperation with the business community, which you are a part of, and which VIA's students one day will be a part of. We educate our students for a job in a global world, where the abilities to adapt and collaborate across disciplines and competencies are important. Innovation and interdisciplinary projects are therefore a permanent part of the study programmes. Additionally, an increasing part of the study programmes are offered in English. The programmes within engineering, technology and business at VIA are therefore constantly seeking new collaborations within the business community in terms of hiring our students for work placements, student project, etc.

### ENGINEERING

Civil Engineering Mechanical Engineering Global Business Engineering ICT Engineering

#### TECHNOLOGY

Architectural Technology and Construction Management

#### BUSINESS

International Sales and Marketing Management Marketing Management Value Chain Management





# HOW WILL YOUR COMPANY BENEFIT?

The students from the programmes within engineering, technology and business have a solid theoretical foundation that they are looking forward to try out in practice.

The work placement period is placed relatively late within the programme. Therefore, the students have developed a wide range of competencies and can as such offer the company qualified assistance.

You will as a company evolve by hosting a work placement period. The students provide the latest knowledge in their field and can help by looking at the company from a different perspective. In turn, the company also guarantees that the students receive both professional and personal challenges.

Having a student on work placement is also a great opportunity for the company to consider a potential employee.

#### What will it cost your company?

As a starting point, there are no requirements in terms of salary for students on work placement from the engineering, technology and business programmes. It is up to the individual company to determine whether or not to pay the student a salary.

However, the Danish Society of Engineers (IDA) recommends an indicative salary for all engineering students. Find more information on www.ida.dk or contact the Career Service Centre at VIA.

If the geographical distance between the company and the student on work placement is large, some companies choose to provide financial support for either the transport or the accommodation.



# WHAT WILL IT REQUIRE OF YOUR COMPANY?

The work tasks shall be agreed upon by the company, the student and the supervisor from VIA University College. To ensure the student a rewarding work placement period, the work tasks have to be outlined and approved by the school's supervisor before the work placement period begins.

Companies who employ students on work placement must ensure that the student is subject to the same work environment, insurance and safety conditions applying to the other employees within the company.

Furthermore, the company must provide the necessary facilities and information to ensure that the student is able to solve the work tasks. During the work placement period, the students must gain a practical and theoretical insight in relation to the subjects they have studied beforehand. The student achieves this development by gaining insight into how companies act in the real world. This means that the student during his or hers work placement period will require some support from one or more persons within the company. As responsible for a student on work placement, one must therefore be able to both coach and share knowledge with the student.

On several of the study programmes, the work placement period will be evaluated based on either continuous conversations between the company, the student and the supervisor – and/or a final report written by the student and a statement from the company on the performance of the student during the work placement period.

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# **INTERNATIONAL COMPETENCIES**

If you wish to have an international student affiliated with your It company, the same conditions apply as for the Danish students. It could therefore be an obvious opportunity to choose an international student, if you are currently looking into international markets, or if you have a task, which has something where a down a task, which has something with foreign languages. It may also be that you want to with foreign languages. It may also be that you want to with relationalise your company and gain new knowledge on when different cultures meet. Regardless of your objectives, an international student may be a significant resource for wompanies who strive to work globally.

It is possible to provide international students for a work placement period within the following programmes:

- » Civil Engineering
- » Mechanical Engineering
- » Global Business Engineering
- » Information and Communication Technology Engineering
  - Architectural Technology and Construction Management
- » International Sales and Marketing Management
- » Marketing Management
- » Value Chain Management

# **JJ Ghresten Bruun**

### Senior Director at LEGO System A/S

In connection with his work placement period on the Value Chain Management programme, Henrik Berg Jepsen got a work placement with LEGO System A/S. "Henrik has during his work placement period been affiliated with an experienced production manager. In collaboration with the production manager, they have formulated a project which is relevant for LEGO System A/S and at the same time ensures that Henrik will be able to work independently and be able to use some of the theories he has learned during his study period. As a company, we thereby get the newest knowledge from the educational institutions, and we have the opportunity to get to know Henrik both as a person and his professional side - and can therefore assess on the opportunity of employment after a completion of his study. Through Henrik's project, we have solved a problem, which we for some time have wanted to focus on, but due to missing resources not have been able to. Now, the task is solved and has given us the expected improvements, and we also sense that Henrik has matured with the task and has a realistic impression of the real working life – which he will encounter, when he is done with his studies". 把你放了什么?""你们说是一个错误的我们说他们从一下,在这些

#### ENGINEERIN

Civil Engineering Mechanical Engineering Global Business Engineering Information and Communication Technology Engineering

#### TECHNOLOGY

Architectural Technology and Construction Management

#### BUSINESS

Marketing Management International Sales and Marketing Management Value Chain Management

# FACTS ON THE STUDY PROGRAMMES

### ENGINEERING CIVIL ENGINEERING



Civil Engineering is a 3½-year bachelor programme, which includes a 5-month work placement period durin the 5th semester. The study programme is very project-oriented, and the student will through his or her studies gain a solid understanding of how the construction industry works, as well as the building process including all the technical, financial and legal aspects.

The following list provides examples on work tasks, which a Civil Engineering student would be able to help solve during the work placement period:

- » Conduct modelling and computer analysis of constructions
- » Calculate wood, steel and concrete constructions
- » Conduct sketching and detailing of construction specifics
- » Conduct energy calculations
- » Review and control statistic calculations
- » Participate in the development of a risk evaluation in relation to soil, groundwater and indoor environment

- » Compose history of any polluted property
- Participate in the planning and implementation of construction projects
- » Participate in the planning and implementation of pollution studies, preventive measures and sewer renovation projects
- » Participate in the dimensioning of sewer lines and the modelling of sewer systems
- » Measure and record concluded tasks performed at the workplace
- » Record and implement quality assurance
- » Conduct measurements for the provision of basic data
- Make proposals for changes in the contractual basis
- » Participate in the ongoing organisation of forthcoming workplace activities
- Participate in project planning of smaller tasks within road construction
- » Conduct marketing tasks within the field
- » Assist in stretch registration

find more information on the content of the programme here...



				Work Placement	Specialisation +	Specialisation + Bachelor Project	
				$\blacksquare$			
1 <sup>st</sup> semester	2 <sup>nd</sup> semester	3 <sup>rd</sup> semester	4 <sup>th</sup> semester	5 <sup>th</sup> semester	6 <sup>th</sup> semester	7 <sup>th</sup> semester	

»

# JJ Lotte Lassen

### Studying Civil Engineering

"Just being in a department with 10 other engineers gave me a lot. When the experienced engineers discussed different problems, I was able to draw on this and take new knowledge with me. I also learned how important it is for different departments to understand how to work together. But I have to get adjusted to voicing my opinion when I'm with others, who have more routine than me. I experienced both academically and personally that I grew along with the amount of responsibility and trust the company showed me. It was good for my self-esteem."

### ENGINEERING MECHANICAL ENGINEERING



### find more information on the content of the programme here...



Mechanical Engineering is a 3½-year bachelor programme that makes the students able to apply creativity and engineering skills in all aspects of the development, from the first idea to the final product. Following the work placement period, the student can specialise in Sustainable Energy, Innovation and Product Design or Intelligent Mechanics. The programme includes a 5-month work placement period durin the 5th semester.

The following list provides examples on work tasks, which a Mechanical Engineering student would be able to help solve during the work placement period:

- » Define, plan and implement projects
- Conduct idea generation, analysis and test runs
  including documentation of the test
- » Develop prototypes and demonstration models
- » Design and dimension products, machinery and equipment – for example energy facilities
- » Perform construction and calculation tasks for example by drawing in 2D/3D and using FEM calculation analysis

- Conduct automation tasks for example using control and robotics technology
- » Perform financial and environmental evaluations from cradle to grave analysis
- » Participate in the work of maintaining, updating and controlling products and production facilities
- Participate in the implementation of new machines into the production - including defining requirements, break-in and follow-up
- » Develop new offers, make purchases, etc.

				Work Placement Specialisation + Bachelor Pro		
				$\blacksquare$		
1 <sup>st</sup> semester	2 <sup>nd</sup> semester	3 <sup>rd</sup> semester	4 <sup>th</sup> semester	5 <sup>th</sup> semester	6 <sup>th</sup> semester	7 <sup>th</sup> semester

# " **Emil Ewald** Hesel

### Studying Mechanical Engineering

"Being a part of a workplace is a source of experience in itself. I was able to see, which things they prioritised highly in a project, and which things they spent less time on. I worked with several projects. Among other things, a pro*ject where I experienced being a part of the idea generation for a machine,* drawing it, calculating it and seeing it completely build. I was able to use many of the basic theoretical tools, which VIA had provided me with. At the same time, it made it easier for me to build on the practical knowledge, which my work placement gave me."



# Ruxandra Rafa

### Studying Global Business Engineering

"My work placement period at Siemens has helped me develop a lot. Within a short amount of time, I was responsible for my own work tasks, and I learned what it means to work in a large organization. This has helped me grow as a person, and I have discovered that I am able to contribute in many ways at a workplace. Because many of the things, which I have learned through my studies, I have been able to apply in practice. After my work placement period, I landed a student job at Siemens, and I hope that I will get a permanent job once I finish my studies."



### find more information on the content of the programme here...



### **FNGINFFRING GLOBAL BUSINESS** ENGINEERING

Global Business Engineering is a 4 <sup>1</sup>/<sub>2</sub>-year international bachelor programme, which includes a 5-month work placement period during the 7th semester. The programme combines science and technology with language, finance and marketing with an international focus. The study programme is in English and prepares the students for an international career.

The student's skills depend partly on the choice of elective courses within the programme and partly on the choice of specialisation.

Students from the Global Business Engineering programme specialise either within Mechanical Engineering or ICT Engineering. As such, the students are able to solve the work tasks listed below as well as tasks within their choice of specialisation.

Among other things, students from the Global Business Engineering programme are able to solve the following work tasks during their work placement period:

- Work as supporter of the Product Managers
- Develop and implement market research »
- Conduct idea generation, work analysis and test runs -» including documentation of test etc.
- Participate in the planning and implementation of » projects (for example development, purchasing, procurement or R&D)
- Conduct market segmentation »
- Plan and implement marketing campaigns »
- Support business development projects »
- Conduct technical sales tasks »

1<sup>st</sup> semester 2<sup>nd</sup> semester 3<sup>rd</sup> semester

4<sup>th</sup> semester

5<sup>th</sup> semester

6<sup>th</sup> semester

**Specialisation + Bachelor Project** Work Placement 8<sup>th</sup> semester 9<sup>th</sup> semester

7<sup>th</sup> semester

# Jesper Kehlet Bangsholt

### Studying ICT Engineering

"Through my work placement period, I got a great insight into how to use the practical knowledge that I have gained through my studies. It was a great feeling to see ones hard work actually ending up being used in real life. In addition, I acquired a good professional network which without a doubt will be helpful for me in the future."



### find more information on the content of the programme here...



### ENGINEERING ICT ENGINEERING

ICT Engineering is a 3½-year bachelor programme in English, which focuses on the field of IT. The study programme prepares the student to handle business functions within Web Engineering, Enterprise Engineering and Embedded Engineering. These areas of specialisation are offered in the 6th and 7th semester.

Before the work placement period, ICT Engineering students » have acquired competencies within both high-level and lowlevel programming languages. Furthermore, they have learned about structured and agile development methods and » have worked project-oriented during their studies. The work » placement consists of a 5-month period in the 5th semester. »

The following list provides examples on work tasks, which an ICT Engineering student will be able to help solve during the work placement period:

- » Analyse, design and implement ordinary computer systems, for example by using object-oriented techniques and design patterns
- » Conduct programming in multiple languages

#### (Java, C #, C)

- » Design and implement databases using SQL
  - Design and implement network solutions, client/server systems and distributed systems
- Analyse, design and use complex algorithms and data structures
- » Analyse, design and implement real-time systems
- Understand and calculate simple electronic circuits as well as read component data sheets
- » Build and programme circuits with microcontrollers
- » Calibrate and use measuring equipment
- » Design and implement web solutions (JSP, CSS, XHMTL)
- » Configure and manage networks
- » Participate in projects, project planning and project management such as SCRUM
- Help document system development processes and products

				Work Placement	Specialisation + Bachelor Project	
				$\blacksquare$		
1 <sup>st</sup> semester	2 <sup>nd</sup> semester	3 <sup>rd</sup> semester	4 <sup>th</sup> semester	5 <sup>th</sup> semester	6 <sup>th</sup> semester	7 <sup>th</sup> semester

# **Morten Hauge Andersen**

### **Construction Architect graduate**

"At VIA, I often worked with the program, Revit Architecture. From day one, I have been able to draw on that experience during my work placement at Ravn Arkitektur. I have also been able to contribute with calculations and legal advice in relation to different legal requirements. The theoretical tools are important, however, the biggest job is often to adjust them to the way the company works, since things work slightly different in practice than they do in theory."



### find more information on the content of the programme here...



### TECHNOLOGY ARCHITECTURAL TECHNOLOGY AND CONSTRUCTION MANAGEMENT

Architectural Technology and Construction Management is a 3½-year bachelor programme, which includes a work placement period during the 6th semester. The programme makes the students able to plan, project and coordinate construction projects as well as control the production process and participate in quality assessments.

The following list provides examples of tasks that an Architectural Technology and Construction Management student can help solve during a work placement period:

#### Students specialising as operating constructors

- Perform construction management or process management
- » Perform basic estimations
- » Calculate and procure new offers
- » Perform quality control and quality assurance
- » Set up building projects and quality assurance schedules
- » Participate in site meetings and project meetings
- » Participate in planning and construction management
- » Undertake financial management
- » Develop working drawings

#### Students specialising as project supervisor

- » Conduct projects in Revit
- » Offer solid knowledge on "Low energy houses"
- » Conduct designs of floor plans and interior designs
- » Prepare tender documents and develop models
- » Create prospectus and visualisations
- » Be helpful in the dialogue with the authorities
- » Participate in project coordination with the engineer and architect
- » Prepare detail drawings and project descriptions
- » Develop plan, section and facade drawings
- » Perform project inspection
- » Work with analysis and the selection of materials
- » Perform project design in 3D
- » Participate in monitoring

					Work Placement	<b>Bachelor Project</b>
1 <sup>st</sup> semester	2 <sup>nd</sup> semester	3 <sup>rd</sup> semester	4 <sup>th</sup> semester	5 <sup>th</sup> semester	6 <sup>th</sup> semester	7 <sup>th</sup> semester



### Entrepreneurial company situated within the Vitus Bering Innovation Park

"We've have acquired the desired insight on most of the markets, which the students have researched and analysed. Within the near future, it is our plan to work with more students on the project to open up exports to Romania and East Africa. Our students on work placement are both ambitious and committed. We are because of them able to think globally in our everyday life. Using international students gives us the extra strength that allows us to keep ourselves updated and gain an understanding of the foreign markets."









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### BUSINESS MARKETING MANAGEMENT

Marketing Management is a 2-year programme within international business and marketing. The study programme provides the students with the tools to independently analyse, » plan and implement solutions that broadly relate to marketing within trade, production and service companies. On the 4th » semester, the student must participate in a 3-5 month work placement period. »

The student's skills depend on the choice of elective courses. The following list will provide examples of tasks, which a Marketing Management student is able to help solve during a work placement period:

- Conduct supplier analysis identify and analyse potential suppliers
  - Conduct industry/market analysis evaluate the attractiveness of new or existing industries
  - Contribute to the composition of marketing material including direct mails, brochure, advertisements, etc.
- » Participate in sales activities such as sales meeting and fairs

find more information on the content of the programme here...



		Worl	k Placement + Final	Projec
1 <sup>st</sup> semester	2 <sup>nd</sup> semester	3 <sup>rd</sup> semester	4 <sup>th</sup> semester	

# Sabrina Lerche Nielsen

### Marketing Management student

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"I had the opportunity to test my qualifications out in the real world. As a student, you are often unsure of how much practical knowledge you actually have. Through my work placement period, I really saw how widely my competencies reached, and I also acknowledged the many interfaces of my study programme. The work placement period also showed me the importance of the link between theory and practice - here VIA's focus on establishing practice-oriented study programmes has been beneficial in every possible way."





### find more information on the content of the programme here...



### BUSINESS INTERNATIONAL SALES AND MARKETING MANAGEMENT

International Sales and Marketing Management is a 3 ½-year bachelor programme in English, which focuses on International Sales and Marketing. The programme is a 1½-year top-up of the 2-year Marketing Management programme. During the programme, the student will acquire skills to independently analyse, evaluate and reflect on various issues and perform complex tasks related to sales and marketing. On the 7th semester, the student has the opportunity to conduct a work placement period of 3-5 months.

In addition to tasks which the Marketing Management students can perform, a student from the International Sales and Marketing Management programme can also help perform with the following tasks:

» Develop customer analysis with focus on for example prioritising, strengthening relationships and creating added value in relation to the company's customers

2<sup>nd</sup> semester

3<sup>rd</sup> semester

4<sup>th</sup> semester

5<sup>th</sup> semester

» Conduct competition analysis

1<sup>st</sup> semester

- Participate in building competitor observing systems and maintenance of these
- Analyse the company's opportunity of doing e-business in relation to establishing or developing the company's website
- Contribute with building customer databases including customer relationship management systems
- Contribute to the creation or development of the company's website
- » Contribute to the preparation of a marketing plan including strategy and action plans

7<sup>th</sup> semester

6<sup>th</sup> semester

# **Norten Stisen**

### Studying International Sales and Marketing Management

"I'm an intern in a small company, which means the span from me to the decision-maker is quite short. We are only two employees and my boss, so I have a great opportunity to influence decisions and gain responsibility. Much of the theory I learned during my education, I have been able to use as a basis for what I do in practice today. It's not so much the factual theory from the books that I can use. However, during class we have been great at discussing the theories with a focus on how to use them in practice. And that has helped me."

# NAGEMENT

### find more information on the content of the programme here...



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### BUSINESS VALUE CHAIN MANAGEMENT

Value Chain Management is a 3 ½-year bachelor degree in English, which focuses on process understanding from a » mercantile point of view. The students acquire the skills to » supervise the entire value chain from raw material to the final » product offered the customers as well as the ability to create » maximum value for the company. The programme includes » a 5-month work placement period during the 5th semester.

The student's skills depends on the choice of elective courses within the programme. The following list provides examples of work tasks that a student on the Value Chain Management programme can help solve during an a work placement period:

- » Participate actively in purchasing finding potential suppliers
- » Conduct warehouse optimisation make ABC analysis
- » Participate in the planning of production and shipping
- » Apply MPS systems within the company
- » Analyse the supply chain and be active in the

production and process optimisation projects

- Optimise the quality control within the company
- » Perform and implement LEAN analysis
- » Execute estimates and forecasts
- » Manage small projects across the company
- Participate in the planning and execution of strategic situational analysis (external and internal)
- » Participate in the planning and execution of customer and competitor analysis
- » Participate in the development of a marketing plan

				Work Placement Specialisation + Bachelor Placement		<b>Bachelor Project</b>
1 <sup>st</sup> semester	2 <sup>nd</sup> semester	3 <sup>rd</sup> semester	4 <sup>th</sup> semester	5 <sup>th</sup> semester	6 <sup>th</sup> semester	7 <sup>th</sup> semester

# Henrik Berg Jepsen

### Value Chain Management student

"The books teaches you a lot and so does the practical projects on the study, but real experience is only gained by working in the real world. My work placement period at LEGO has taught me a lot in terms of finding the right way to take on a task, and especially on how to find the right approach to address the many different people you meet at your workplace. These factors I consider essential skills, which are important to have acquired when joining the job market. Another thing I have experienced is the fact that reality is much more complex than the theories in the books, especially in a big company like LEGO, which has given me a more effective approach when taking on new tasks."



# **CAREER SERVICE CENTRE**

#### The companies' road to the perfect student

Within the Career Service Centre (CSC), it is the purpose to establish the contact between students and companies. CSC is able to offer company profiling and the opportunity to meet students face-to-face at various events.

If you have any questions or want more information on the possibilities of cooperation with engineering, technology and business students at VIA University College, you can contact Louise Skjoldager from Career Service Centre or find more information on www.viauc.dk/karriere.

#### Louise Skjoldager

Consultant with the Career Service Centre loss@viauc.dk +45 87 55 40 15















# **VIA JOB**

CSC has launched a job portal - VIA job, in order for companies to get into contact with students from VIA University College. On the job portal, you can upload jobs, work placements and projects - so that they are visible to the students. If your company wants an intern with an international perspective, it may be an advantage for you to upload the adverts in English in order to involve the international students at VIA.

Find the job portal - VIA job - on www.viauc.dk/karriere



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