Cphbusiness Course Catalogue
Autumn 2019

TABLE OF CONTENTS

Semester packages marked with * are at Bachelor Top-Up level and have special admission criteria. Please read more in the relevant chapters.
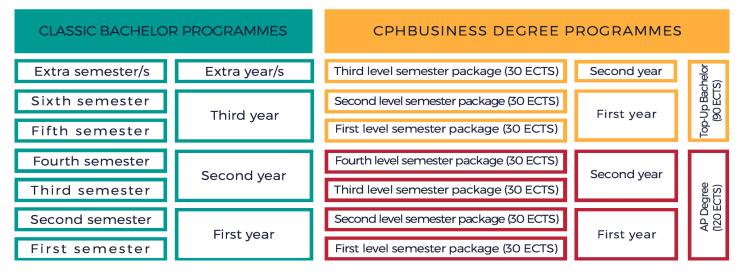
STRUCTURE OF PROGRAMMES

At Cphbusiness, the students can apply for two kinds of programmes:

- **AP Degrees (120 ECTS)** – equivalent to the first 2 years of a classic Bachelor programme
- **Top-Up Bachelors (90 ECTS)** – equivalent to the last 1,5 years of a classic Bachelor programme

Each AP Degree (with its specific combination of subjects) prepares students for admission to one or several Top-Up Bachelors. This means students must fulfil specific academic requirements when applying for a semester at a Top-Up Bachelor programme.

All programmes are divided in semester packages of 30 ECTS. **Incoming exchange students must choose a whole semester package (30 ECTS) for their study abroad period at Cphbusiness.**

Please see below a comparison between a classic bachelor programme and the structure of programmes at Cphbusiness.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

TEACHING METHODS

The teaching and exams at Cphbusiness are often **interdisciplinary.** Tt is **not possible** for students to select individual courses/classes of one educational programme and combine with other courses/classes of another programme in order to compose a tailor-made study programme.

Interdisciplinary teaching means "classic" subjects might be replaced (both in the curriculum and in the timetable) with themes or focus areas. A theme may be for example "Understanding the market", where students will learn and apply theories and models from different disciplines, applying to the business market.

Students have responsibility for their own learning. They have to prepare for teaching in advance by reading relevant literature. They will be placed in a group (usually with students of different nationalities and backgrounds) and together they will have to solve cases inspired by the real business world, with the help of the theories and models studied.

Lecturers at Cphbusiness are facilitators. Their role is often to guide the students and ensure correct understanding and application of theories and methods. In the learning situation, the lecturer will assist the group in correct understanding of the problem they need to solve and make sure they understand and use correct theories and models.

All semester packages described in this course catalogue will be offered in the autumn semester 2018.

Before you start your semester, please read about the Study Environment at Copenhagen Business Academy.

EXAM FORMS AND GRADING SYSTEM

Exam forms

Most exams at Cphbusiness are interdisciplinary and they can take many forms:

1. **Written exams,** which can take several forms: short multiple choice exam or written exams with open questions, lasting up to six hours*.
2. **Oral exams,** which can be based on written work/projects written by a student individually or by a group of students.

The written work/projects can take different forms, e.g. it can be a specific case given to one student /group of students by a lecturer. Both case / project work and presentations can be made in multicultural groups or individually.*

"Interdisciplinary" means that students are expected to apply theories and models from several subject areas in order to answer questions, solve cases or write projects.

Sitting exams in groups of several students ("multicultural groups") means all students in a certain group will be responsible for solving a case, writing (and presenting) a project or answering a question, thus determining (part of) the outcome of the exam (the grade).

The oral presentations (performed either individually or in groups) form the basis of a discussion between students and lecturer (and / or external assessor), which may take its point of departure in the written product (project or case solution) submitted by the students but will not be limited to this.

This means that, regardless of the form of the exam, **students are expected to master all theories and models studied during the semester** and be able to **answer questions, which are not necessarily directly related to the contents of the case/project, they might have submitted**.

Exam dates

Exam catalogues and timetables (dates) will be displayed at the electronic student platform Moodle as soon as possible after semester start.

Students are advised NOT to buy their homebound tickets until they know the exact date of their final exam (or re-exam if necessary, please see below).

Due to possible changes in the exam dates, students are expected to be physically present in Denmark until the official end date of the semester.

Semester dates:

- Autumn semester – mid August - 31 January the following year
- Spring semester – mid January - 30 June

Failing exams

In case of failing exams, students have to sit 2 re-exams. Usually the first re-exam is scheduled up to 2 weeks after the (normal) exam and right before the official end date of the semester.

More information

More information is provided in the "Examination Regulations at Cphbusiness" document available on our website here. Programme and semester specific information will be available for students after semester start in the "Exam catalogue" of their own study programme. It is the students' own responsibility to collect and read relevant information about exams before these take place and in good time to allow proper preparation.

Relevant and updated information about exams on your semester package is available on Moodle → General Information → Exam. (Cphbusiness log-on required)

Exams at Cphbusiness are graded according to the Danish 7-Point Grading Scale or with "pass / no pass". A "pass / no pass" will be awarded to students at the end of a semester, where no formal exams are organized, according to a specific set of criteria defined by lecturers.
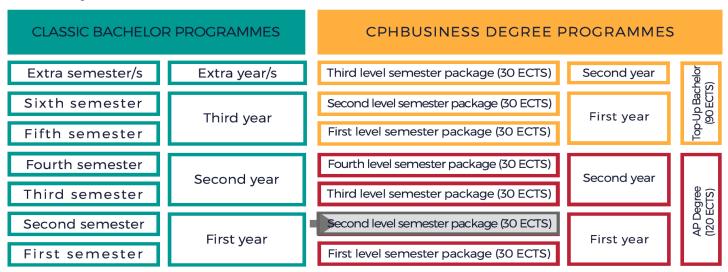
Courses in Marketing Management

S-MEC-2-E-19 (Marketing Management level 2 Søerne)

The courses of this semester package take place at Cphbusiness Søerne (Nansensgade 19, 1366 Copenhagen K).

1. An illustration of the level of the semester package

The second semester of the AP Degree in Marketing Management is equivalent to the second semester of a classic Bachelor degree.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

2. Admission requirements

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages)** in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

3. Information about exams

An individual written case-exam will conclude the second semester, where the students get 24 hours' preparation on a specific business related problem, followed by a 6 hours' written exam.

This exam covers all subjects studied during the semester (described in the table below) and therefore all 30 ECTS of the semester package.

For general information about exams and grading scale, please check the relevant chapter.

4. Description of subjects

At Cphbusiness, we use different methods of teaching. The common denominator is that the students get to use the theories and models in a practical context. We do that by working with cases, exercises and projects that incorporate the tools in a real life situation.

As students advance from theme to theme (see the table below), new materials build on the lessons learned from previous themes and advance the student's competencies and knowledge by working with a multidisciplinary approach.

In order to ensure progress, a number of Obligatory Learning Activities (OLA) planned and conducted during the semester. The 5 OLA's per semester allow the students to deliver assignments and/or projects and receive feedback from their teachers, which help them reflect on their progress.

	Theme 4 Tactical and operational marketing on B2C including digitalizing	Theme 5 Tactical and operational marketing on B2B including digitalizing
Marketing (7 ECTS)	Marketing parameters 4(+) P's Pricing Marketing Plan and budgeting Collection and use of trade parameters offline and online (5 ECTS)	STP Marketing Plan B2B segmentation and targeting Business Buying Behaviour offline and online (2 ECTS)
Economics (10 ECTS)	Budgeting and follow--up on campaigns Pricing (VAT) Business Case (6 ECTS)	Budgeting / scenarios (Coverage, break-even, sensitivity analysis, ROI, liquidities, etc.) (4 ECTS)
Business Law (3 ECTS)	Act on Contracts Act on Sales of Goods Act on Marketing E-business International Business Law (3 ECTS)	
Communication (8 ECTS)	Marketing communication (campaigns, message, materials, use of media including online marketing) POS (point of sales) measuring effect and ROI (5 ECTS)	Sales cycle Personal selling Sales psychology Negotiation techniques CRM (3 ECTS)
Organization and Supply Chain Management (2 ECTS)	Assortment Distribution Retail / E-commerce (1 ECTS)	Relationship types Supply Chain Management Choice of distribution, storage--control, form of establishment and partner management (1 ECTS)
	Total – (20 ECTS)	Total – (10 ECTS)

Click here to return to Table of Contents

S-MEC-3-E-19 (Marketing Management level 3 Søerne)

The courses of this semester package take place at Cphbusiness Søerne (Nansensgade 19, 1366 Copenhagen K).

1. An illustration of the level of the semester package

The third semester Marketing Management is equivalent to the third semester of a classic Bachelor programme.

2. Admission requirements

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - [level B2 on CEFR](#) (**Common European Framework for Languages**) in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

Academic requirements

Please note the courses of the third semester package Marketing Management require that **you have basic knowledge of Marketing, Economics, Statistics, Supply Chain, and Organisation**. In order to get an idea about what you need to know, please check the description of the first and second level semesters Marketing Management:

- First level: [S-MEC-1-E-18 (Marketing Management 1 Søerne)](#)
- Second level: [S-MEC-2-E-18 (Marketing Management 2 Søerne)](#)

3. Information about exams

Each module will be evaluated by an exam graded using the 7-point Grading Scale. Exam form depends on subject.

For [general information about exams and grading scale, please check the relevant chapter.](#)

4. Description of subjects and teaching

The third semester Marketing Management is divided in 3 periods of 6 weeks each. During the first period, students will cover the mandatory courses described in the table below. During the second and third periods, students will cover elective subjects. Students will receive an Elective Subjects Catalogue together with more information about registering for the relevant electives as soon as possible.

Teaching and group-work will start already from the first day and students must make sure they arrive in Copenhagen at least one or two working days before the start of the semester, in order to solve practical matters.

Each period ends with an exam.

Subject	ECTS
International Marketing (mandatory)	5
This course digs into the different strategies a company can employ for internationalisation (from an overview of the benefits and possible pitfalls of internationalisation to working in depth with market assessment and selection to choice of entry strategies.)	
International Economics (mandatory)	5
This course supports the marketing subject in providing tools for describing and assessing economic factors relevant to the company's internationalization efforts, and goes further in determining the financial effects of investing in new markets. The criteria for selecting international markets are investigated using trade theories, exchange rate formation, causes of inflation and employment as well as looking into the sources of financing internationalization.	
Elective subject (You will have to choose 4 from a list of offers. The final list will be sent to students separately. The list below can be used for inspiration. Please note changes may occur.)	(4x) 5
Examples of possible elective subjects. Do NOT use the below for your learning agreement. Contact us at incoming@cphbusiness.dk for an updated list over elective subjects for your semester. • Statistics; • Managerial Economics; • Business law; • Entrepreneurship; • Export marketing; • Retail management; • Marketing in practice; • Digital marketing and SoMe	

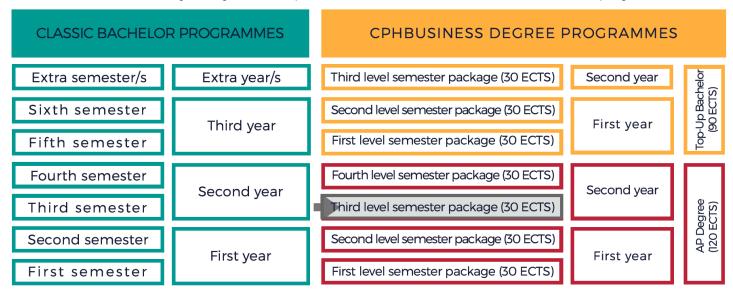Click here to return to
Table of Contents

L-MEC-3-E-19 (Marketing Management level 3 Lyngby)

The courses of this semester package take place at Cphbusiness Lyngby (Nørgaardsvej 30, 2800 Kgs. Lyngby).

1. An illustration of the level of the semester package

The third semester Marketing Management is equivalent to the third semester of a classic Bachelor programme.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

2. Admission requirements

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages)** in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

Academic requirements

Please note the courses of the third semester package Marketing Management require that **you have basic knowledge of Marketing, Economics, Statistics, Supply Chain, and Organisation**. In order to get an idea about what you need to know, please check the description of the first and second level semesters Marketing Management:

- First level: S-MEC-1-E-18 (Marketing Management 1 Søerne)
- Second level: S-MEC-2-E-18 (Marketing Management 2 Søerne)

3. Information about exams

Each module will be evaluated by an exam graded using the 7-point Grading Scale. Exam form depends on subject.

For general information about exams and grading scale, please check the relevant chapter.

4. Description of subjects and teaching

Classes at Cphbusiness Lyngby have a different structure than the ones at Cphbusiness Søerne.

The teaching is highly interdisciplinary and the students will not study the subjects in the classical way (e.g. Marketing, Business Law or Economics as separate disciplines).

Instead, the curriculum is divided into "theme modules" with different learning objectives. Each learning objective is achieved by learning and working with tools and theories across the traditional disciplines and sometimes across different programmes.

Although structured differently, the workload is similar to the description below.

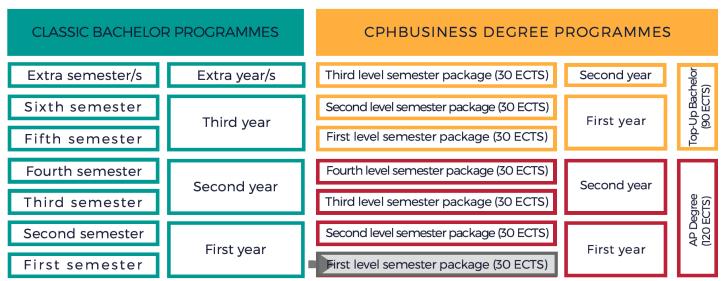| Subject	ECTS
Global Marketing (mandatory)	5
This course digs into the different strategies a company can employ for internationalisation (from an overview of the benefits and possible pitfalls of internationalisation to working in depth with market assessment and selection to choice of entry strategies.)	
Global Economics (mandatory)	5
This course supports the marketing subject in providing tools for describing and assessing economic factors relevant to the company's internationalization efforts, and goes further in determining the financial effects of investing in new markets. The criteria for selecting international markets are investigated using trade theories, exchange rate formation, causes of inflation and employment as well as looking into the sources of financing internationalization.	
Elective subject (You will have to choose 2 from a list of offers. The final list will be available in May. The list below can be used for inspiration. Please note changes may occur.)	(2x) 10
Examples of possible elective subjects. Do NOT use the below for your learning agreement. Contact us at incoming@cphbusiness.dk for an updated list over elective subjects for your semester. • Entrepreneurship • Business Economics • Digital marketing • Retail marketing	

Courses in Service, Hospitality and Tourism Management

N-SEM-1-E-19 (Service, Hospitality and Tourism 1 Nørrebro)

The courses of this semester package take place at Cphbusiness Nørrebro (Blågårdsgade 23B, 2200 Copenhagen N).

1. An illustration of the level of the semester

The first level semester package of the Service, Hospitality and Tourism Management programme is equivalent to the first semester of a classic Bachelor programme.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

2. Admission requirements

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages)** in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

3. Information about exams

There will be one interdisciplinary exam after the first level semester. The exam will cover all subjects studied during the semester. One grade will be awarded.

For general information about exams and grading scale, please check the relevant chapter.

4. Description of subjects and teaching

Educational Element	ECTS
Service and Experiences	15
Content: The Services & Experiences subject area includes analyses of the hospitality concept and the understanding of the concept of guests, including customer behaviour in relation to the company's services. Learning objectives:	

Knowledge	
The students should have acquired knowledge of:	

The students should have acquired knowledge of:

- The practice and development of the service and experience industry
- What characterise services and experiences
- The development of the demand for experience products
- The sustainable financial operation of service and experience companies
- The development of the hospitality concept and the understanding of the concept of guests

Skills
The students should be able to:

- Identify and assess customer satisfaction, customer behaviour and market situation in respect of the company's services and experiences
- Apply creative techniques to design, develop, assess, plan and communicate services and experiences
- Set up the financial basis for decisions as well as communicate proposed decisions
- Use service management as a framework for assessing and communicating practice-related solution models
- Use the hospitality concept in practice

Competencies

The students should be able to: Handle new knowledge, skills and competences within services and experiences in an interdisciplinary cooperation as well as structure data collection as a basis for new solutions

Business Understanding	15

Contents:

The Business understanding subject area includes an analysis of the company's livelihood. Focus is on the internal and external situation with a view to developing the company's financial operations and creating a holistic understanding of the company's present situation.

Learning Objectives:

Knowledge

The students should have acquired knowledge of:

- The service and experience industry's company, organisation, market and competition forms as well as an understanding of the vision, mission, goals and values of companies
- The legal matters of importance to the service and experience company

Skills
The students should be able to:

- Analyse and assess the company's financial situation as well as set up a total budget for an experience or service company
- Set up and communicate a basis for decisions based on the company's positioning, target groups and micro- and macroeconomic situation

Competencies
The students should be able to:

- Take part in interdisciplinary work on drawing up and assessing the internal and external analysis with a view to the running of the company
- Acquire new knowledge, skills and competences concerning the running of service and experience companies at a tactical and operational level
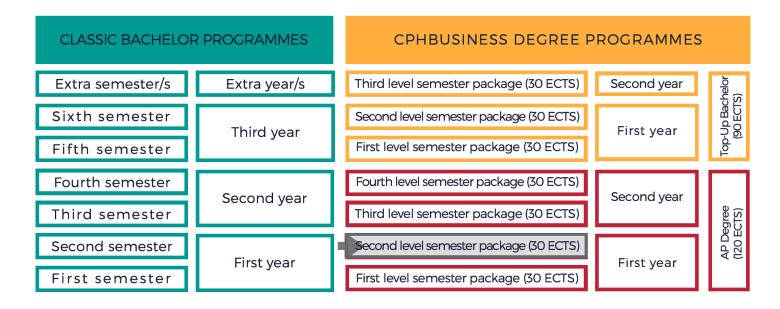

Click here to return to Table of Contents

N-SEM-2-E-19 (Service, Hospitality and Tourism 2 Nørrebro)
Service, Hospitality and Tourism Management level 2 – Cphbusiness Nørrebro.

The courses of this semester package take place at Cphbusiness Nørrebro (Blaagaardsgade 23B, 2200 Copenhagen N) during the spring semester 2019.

1. An illustration of the level of the semester

The second semester of the AP Degree in Service, Hospitality and Tourism is equivalent to the second semester of a classic Bachelor programme.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

2. Admission requirements

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages)** in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype conversations with nominees before accepting them for a study programme.

3. Information about exams

Two exams will conclude the second semester of Service, Hospitality and Tourism Management:

- The first year exam, covering "Cooperation and Relations" graded according to the 7-point grading scale
- Elective exam 1 (see details below) covering both Elective subject 1 and Elective subject 2 – graded on the 7-point grading scale.

For general information about exams and grading scale, please check the relevant chapter

4. Description of subjects and teaching

Compulsory elements

Subject	ECTS
Cooperation and Relations	15
Content: The Cooperation & Relations subject area includes communication and management forms in an intercultural perspective, with focus on the interaction with the guest and the employee. Focus is on analysis and data material as the basis of developing internal and external communication in a national and international perspective. Learning objectives: *Knowledge*	

The students should have acquired knowledge of:

- Management within service and experience industries
- The applied practice concerning intercultural interaction and communication with the national as well as the international guest, customer, employee, volunteer, etc.
- Recruitment, employment, retention and dismissal of employees and volunteers

Skills

The students should be able to:

- Build up a personal and professional network with a view to strengthening relations with the labour market
- Identify and assess managerial issues and set up suggested solutions
- Develop internal and external communication, digitally, in writing and orally to guests, customers, colleagues and business partners
- Apply knowledge of intercultural aspects in relations with the company's internal and external partners and stakeholders

Competencies

The students should be able to:

- Take part in interdisciplinary cooperation with internal and external partners and stakeholders in an international environment
- Take part in the development of the professional communication

Acquire new knowledge, skills and competences concerning management and communication within the service and experience industry at a tactical and operational level

Elective Educational Element A	10
Please see descriptions in the table below.	
Elective Educational Element B	5
Please see descriptions in the table below.	

Elective Educational Element A

Students must choose one of the below.

Elective Educational Element A	
Individual assessment. One single grade is given according to the 7- point grading scale. The exam will test Elective educational element A & B.	
Hotel and Restaurant Management	10
Content: Understanding of the hotel and restaurant industry's practice with the guest in focus, including an understanding of the individual hotel and restaurant company's role in the industry Learning objectives *Knowledge* The students should have acquired knowledge of: • The practice and development of the hotel and restaurant industry, including ownership structures • The organisation and operation of the hotel as well as the interaction between the different internal and external business partners • The characteristics of hotel and restaurant services, including international and Danish concepts • International and Danish classification systems within the hotel and restaurant industry *Skills:* The students should be able to: • Apply the hotel and restaurant industry's professional financial terminology • Set up and select options for menu plans along with calculations • Apply the industry's average numbers and key figures to set up and simulate options • Identify and apply the hotel and restaurant industry's distribution channels • Assess digital possibilities and suggest a solution within digital marketing • Identify critical control areas in production and set up plans for self- monitoring *Competences* The students should be able to: • Identify and take part in developing and changing processes and deliveries with respect to the service concept • Take part in pricing the services of the hotel and restaurant	
Tourism Management	10
Content: Understanding of the practice of tourism with the destination as the central component, including an understanding of the individual tourism company's role in the tourism system *Knowledge* The students should have acquired knowledge of: • The practice, development and strategy of tourism • What characterises tourism products	

• Tourism supply and demand
• Trends in tourism
• Marketing in Tourism
Skills:
The students should be able to:
  • Participate in preparing a destination analysis
  • Identify the tourism distribution and marketing channels
  • Involve relevant stakeholders in destination development
Competences
The students should be able to:
  • Take part in planning and developing destinations
  • Take part in planning and developing new and existing tourism products	

Event Management	10

Content:
The student is to acquire an understanding of the practice of the event with the overall aim of being able – in cooperation with others – to handle the development, planning, and implementation of small and medium-sized events
Learning objectives
Knowledge
The students should have acquired knowledge of:
  • What events are and what development they have undergone
  • What tasks are connected with the life cycle of events
Skills:
The students should be able to:
  • Draw up and assess the suitability of a concept with respect to target group and stakeholders
  • Identify and assess potential sponsorships and fundraising options
  • Assess whether the event is financially sustainable
  • Assess which persons and competences are required to run the event, including volunteers
  • Assess the suitability of different communication channels for the promotion of events
  • Apply digital planning tools to develop of events
  • Assess practice-related risks and legal aspects
Competences
The students should be able to
  • Take part in the operational, tactical, and strategic tasks in developing, planning, and implementing sustainable small and medium-sized events	

Elective Educational Element B

Students must choose one of the below

Elective Educational Element B	
Assessment (exam): Individual assessment. One single grade is given according to the 7- point grading scale. The exam will test Elective educational element A & B.	
Trend Forecasting	5

Content:
The purpose of Trend Forecasting is for the student able to work with trends in different industries (restaurants, retail, tourism and others) and in different categories (physical products, services, and experiences)
Learning objectives
Knowledge
The graduate will
  • Have knowledge about the historical development of trend research
  • Be able to understand the trend process
  • Have knowledge about trend forecasting techniques
Skills
The graduate will
  • Be able to apply trend forecasting techniques
  • Be able to evaluate a trend's place in the trend cycle
 	
Competence
The graduate will
  • Be able to take part in innovation processes using trend forecasting techniques	

Project Management	5
Content: The purpose of the elective is to introduce you to the concept and the core elements of project management, which is very useful when dealing with e.g. organizational changes, development and implementation of new service products and procedures, planning and realization of events etc.	

You will get a basic understanding of project management and become familiar with the key terms and processes in order for you to be able to participate as an important resource in projects.

Having completed the elective including the exam you have obtained new knowledge, skills and competences in relation to working in a structured manner with projects in the service business.

Learning objectives

Knowledge

The graduate will gain knowledge of:
- The principles of different project management systems/paradigms (waterfall, agile, SCRUM)
- The core elements of project planning and project management (goal hierarchy, resources, stakeholders, communication, risks, budget etc.)

Skills

The graduate will acquire skills in:
- Applying the different principles of project management to a specific project in a service company using relevant it-tools (MindView and alike)
- Planning a project and communicating a project plan to relevant stakeholders

Competencies

The graduate will get professional competencies in:
- Working with projects in a structured and consistent manner and in collaboration with others be able to undertake and perform valuable job tasks and roles in a project

Digital Marketing	5

Content:

Digital Marketing takes a hands-on approach to ads creation, building on tutorials, guidance and workshop based sessions - so we can practice in class. This elective focus on providing students live and practical tools to execute digital marketing for the SMV-segment on platforms like Facebook, Google and Instagram supported by design tools such as Canva and in-debt research tools for optimising ads spending, reach and efficiency.

Learning Objectives:

Knowledge

The graduate will:
- Gain knowledge about how a variety of key factors and terms such as CTR (Click Through Rate), CPM (Cost Pr. Mille) and TA (Target Audience) can be used to increase the potential, efficiency and effect of a digital ad.
- Gain insights in costumers and potential costumer's perception of and reactions to online ads.
- Gain insights in how to utilize digital marketing as 'targeting' tool towards specific customer segments.

Skills

The graduate will be able to:
- Use relevant programs for creating and editing digital ads.
- Assess the ad's potential i a costumer request for the promotion of a product.
- Do potential AB/split test online ads for specific products.
- Set up specific and completed ads to direct execution.

Competencies

The graduate will be able to:
- Handle, design, carry through and evaluate the clout of online ads in cooperation with other stakeholders.
- In cooperation with others actively participate in the development of digital marketing through online advertisement.

Customer and Guest Psychology	5

Content:

The focus in Customer and Guest Psychology will be on human/costumer personality types in relation to understanding behaviour in different situations in the hospitality industry and how these affect the experience in the different contexts.

Learning Objectives:

Knowledge

The graduate will gain knowledge about:
- Personality types and how this can be used in the hospitality industry.
- Costumer and guest relations in a cultural context in Denmark and across cultures.
- Stereotyping and how the past, future and present can affect the service experience

Skills

The graduate will be able to:
- Identify different situations of service and gain an understanding for the possibilities and limitations of the given context.

Competencies

The graduate will be able to:
- Use the knowledge of different costumer and guest types with the knowledge of stereotyping to improve different areas of service in relevant contexts.
- Use the knowledge about empathy as an option and tool to improve different areas of service in relevant contexts.

Business Start-Up	5

Content:

The purpose (or the objective) of this elective is to present the students to the opportunities, challenges, demands and the decisions a newly started service company will experience, so the students are able to start their own business, alone or together with others.

Learning Objectives:

Knowledge:

The graduate will gain knowledge about:
- The relevant legal company forms and the rules and the agencies of importance for starting a business
- How to get from a business idea to a practical business plan and understand the mentality needed for being an entrepreneur
- The basic economic models and financial calculations needed in the different situations of the start-up of the company

Skill:

The graduate will be able to:
- Use relevant methods to calculate the return on investment and to make decisions based on this
- Compare and asses different financing options
- Use relevant methods to plan and structure the start-up process of a company
- Create a well-structured business plan and communicate it to the relevant stakeholders

Competencies:

The graduate will be able to:
- Participate in the interdisciplinary cooperation regarding the start-up of a service company and being able to act sensibly and rational in regard to the different situations a newly started company encounters
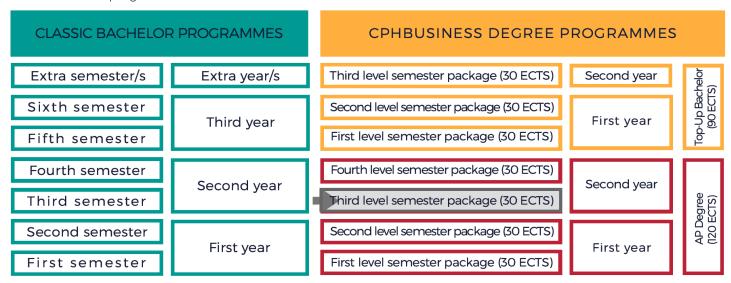
Courses in Financial Management and Services

C-FIB-3-E-19 (Financial Management and Services level 3 City)

The courses of the third level Bachelor Degree in Financial Management and Services take place at Cphbusiness City (Landemærket 11, 1119 København K).

1. An illustration of the level of the semester

The third semester of the Bachelor Degree in Financial Management and Services is equivalent to the third semester of a classic Bachelor programme.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

2. Admission requirements

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages)** in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

3. Information about exams

Information about exams will be available on Moodle after the start of the semester.

For general information about exams and grading scale, please check the relevant chapter.

4. Description of subjects and teaching

Teaching is in English. Cphbusiness expect that the students complete the mandatory tasks and individual learning activities. The lectures will be arranged as classroom teaching with an expected participation of 25-35 students in the classroom. Individual speech and performance will be a big part of the teaching and learning process. The ability to work in groups is essential for the participation in the semester.

The classes on 3rd semester are running on a daily basis, starting at 08:15 until 16:15. There is a lunchbreak between 11:45 and 12:15. The students' workload is approximately 40 hours per week + mandatory tasks.

A day combines group-work, self-study and teaching by a lecturer. Events can be expected, with several classes on same semester, in an Auditorium plenum. A schedule for the entire semester is available on the Learning Management System, (Moodle) before semester start.

The 3rd semester of the Bachelor Programme in Financial Management and Services, runs only in the Autumn/Fall semester, from 29 August (2017) and ends with exams in January 2018.

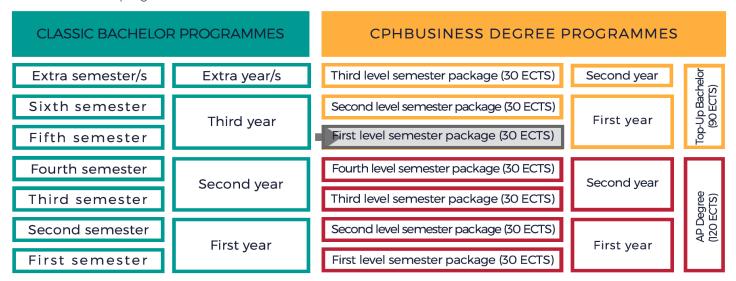| Subject	Contents	ECTS
Statistics	The student is intended to achieve based knowledge of scientific work methods, in order to understand the connection between knowledge, method and result. The goal is, that the student can use qualitative and quantitative methods in project design, data selection and reports, together with a statistic analyze of financial and economic issues.	5
Macro Economics	In this learning element, the student works with relevant theoretical models, which should be used by the student to describe, analyse and evaluate macro-economic issues. The issues have their starting point in macroeconomic goals, income formation, competitiveness, interest and generation of exchange rates, together with economic politics	5
International Capital Markets	Throughout this element, the student shall obtain knowledge of the International Capital Market, using theory and methods, and achieve knowledge of the connection between the Macro economic development and the development of the international capital market in general. The student shall work with knowledge about new tools and tendencies in the international world of finance.	5
Organization	The course "Organization" gives the student knowledge of organizational concepts, methods and tools, in order to use the theory within an organization. The student obtains an understanding of his/her own placement in the organization, how to participate in a professional cooperation, and contribute to the best possible working environment.	5
International Marketing	The student learns to use marketing theories and tools to analyse company strategies, and hereby learn assessing customers, within the financial sector, in order to contribute to create value for the company.	5
Cultural Understanding	In this learning element, the student shall obtain an understanding of organizational and corporate culture Challenges, when a company is established in a foreign country (B2B). The student should be prepared to work as a part of an international organization and cooperate with colleagues with other cultural backgrounds.	5

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Courses in Innovation and Entrepreneurship

*L-INE-1-E-19 (Innovation and Entrepreneurship level 1 Lyngby)
The first level courses take place at Cphbusiness Lyngby (Nørgaardsvej 30, 2800 Kgs. Lyngby).

1. An illustration of the level of the semester

The first semester Top-Up Bachelor Degree in Innovation and Entrepreneurship is equivalent to the fifth semester of a classical Bachelor programme.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	Top-Up Bachelor (90 ECTS)
Fifth semester	Third year	First level semester package (30 ECTS)	First year	Top-Up Bachelor (90 ECTS)
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester	Second year	Third level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Second semester	First year	Second level semester package (30 ECTS)	First year	AP Degree (120 ECTS)
First semester	First year	First level semester package (30 ECTS)	First year	AP Degree (120 ECTS)

2. Admission requirements

Academic requirements

> **BEFORE YOU APPLY FOR THIS SEMESTER PACKAGE**
>
> MAKE SURE YOU HAVE THE FOLLOWING:
>
> At least 2-3 years (120 ECTS) of undergraduate studies e.g. within the fields of design, finance, graphics, computer science, marketing or service

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages)** in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

3. Practical information

Places on our top-up bachelor programmes are limited. Students who apply for a semester on a top-up bachelor programme will be required to send extra documentation to prove they fulfil the above-mentioned criteria. Only students with the relevant background and highest grades will be admitted.

Make sure your second option is a semester package at AP Degree level and that both your options are approved by your home institution before applying.

4. Information about exams

A multiple-choice exam will be organized for Entrepreneurship. The grade (7-Point Grading Scale) will count for 50% of the final grade calculated for the semester.

The other subjects will be evaluated through a group project and an oral group exam. A grade on the 7-Point Grading Scale will be awarded, accounting for the other 50% of the final grade.

Students must receive passing grades in both exams, in order to pass the semester.

For general information about exams and grading scale, please check the relevant chapter.

5. Description of subjects and teaching

Entrepreneurship – 10 ECTS
Contents: This programme element covers both entrepreneurship and intrapreneurship, including testing and validation of concept and business models in relation to product development, marketing and go-to-market. **Learning Objectives:** *Knowledge* The student must have: • development-based knowledge of the subject area's practices and applied theory and methodology, including various approaches to entrepreneurship and intrapreneurship, and the ability to reflect on their relevance and applicability • knowledge of and the ability to reflect on different approaches to the importance of the outside world for entrepreneurship • knowledge of the challenges of and tools for starting and running a business as well as the ability to reflect on these. *Skills* The student must be able to: • use intrapreneurial and entrepreneurial methods and tools and reflect on their relevance and applicability in relation to the development, establishment and operation of sustainable concepts • evaluate practice-oriented and theoretical issues relating to intrapreneurship and entrepreneurship as well as choosing and explaining relevant solution models • communicate practice-oriented and academic issues relating to intrapreneurship and entrepreneurship and solutions to partners and stakeholders. *Competencies* The student must be able to: • handle complex and development-oriented situations related to starting new projects, organisations and businesses • identify personal learning needs and develop own knowledge, skills and competencies within the field of intrapreneurship and entrepreneurship.
Management – 10 ECTS
Content: This programme element covers management at the individual level, including self-management and personal development, as well as other forms of management, including project management, change management, innovation management and the development and management of teams in new or existing businesses. **Learning objectives:** *Knowledge* The student must have: • development-based knowledge of the subject area's practices and applied theory and methodology in relation to management and network structures • an understanding of the practices, theory and methodology applied in management, including personal, team, project and innovation management, and the ability to reflect on the applicability of these. *Skills* The student must be able to:

- apply the methods and tools of the subject area and master the skills related to employment in terms of the management field, including situation analyses in organisations undergoing change
- evaluate practice-oriented and theoretical issues as well as choosing and explaining relevant solution models within team, project, innovation and change management
- establish networks and build relevant relationships
- communicate practice-oriented and academic issues and solutions related to management initiatives and actions in specific contexts to partners and users, as well as building up and participating in relevant relations and networks.

Competencies

The student must be able to:

- handle complex and development-oriented management tasks and challenges in concrete work situations, including personal management, team management, project management and change management in businesses and organisations
- independently enter into specialised and interdisciplinary collaboration within the field of management and assume responsibility within the framework of professional management ethics
- identify personal learning needs and develop own knowledge, skills and competencies related to the profession in terms of management.

Innovation – 10 ECTS

Content:

This programme element includes ideation, creative and innovative processes and concept development regarding the development of sustainable products, concepts, processes etc. in new or existing businesses.

Learning objectives:

Knowledge

The student must have:

- development-based knowledge of various types and perceptions of innovation and the ability to reflect on their relevance
- knowledge and understanding of practices and applied theory and methodology in relation to the development of sustainable business models, designs, products/concepts and processes, from problem identification to ideation and finally validation and implementation
- knowledge of the different approaches and methods for generating and applying knowledge and insights, including collecting, processing, analysing and validating data, and the ability to reflect on the applicability thereof.

Skills

The student must be able to:

- apply the methods and tools of the subject area and master the skills related to working with innovation, including methods for testing ideas, concepts, products etc. as well as creative and innovative processes
- evaluate practice-oriented and theoretical issues relating to innovation as well as choosing and explaining relevant solution models in relation to the relevance and sustainability of personal and peer ideas, concepts, processes and products
- communicate practice-oriented and academic issues, innovative processes and products to stakeholders.

Competencies

The student must be able to:

- develop and drive innovation processes in practice, from problem identification to ideation and finally to the validation and implementation of a sustainable product, design, concept or process in new or existing businesses and organisations
- independently enter into specialised and interdisciplinary collaboration within the field of innovation and assume responsibility within the framework of professional ethics
- identify personal learning needs and develop own knowledge, skills and competencies within the field of innovation.
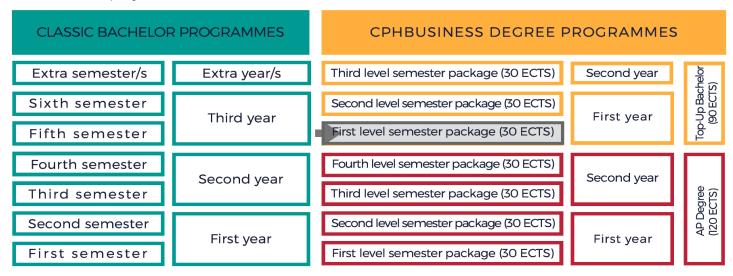

Click here to return to Table of Contents

Courses in International Sales and Marketing

*S-INS-1-E-19 (International Sales and Marketing level 1 Søerne)

The courses of this semester package take place at Cphbusiness Søerne (Nansensgade 19, 1366 Copenhagen K).

1. An illustration of the level of the semester package

The first semester of the Top-Up Bachelor in International Sales and Marketing is equivalent to the fifth semester of a classic Bachelor programme.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

2. Admission requirements

Academic requirements

> **BEFORE YOU APPLY FOR THIS SEMESTER PACKAGE**
>
> MAKE SURE YOU HAVE THE FOLLOWING:
>
> At least 2 years (the equivalent of an AP Degree (120 ECTS)) of undergraduate studies within Marketing, Economics and Management, Organisation, Supply Chain Management and Logistics, <u>including:</u>
>
> - Marketing - 20 ECTS
> - Management, Organisation, Supply Chain Management, Logistics - 10 ECTS
> - Economics - 15 ECTS

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages)** in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

3. Practical information

Places on our top-up bachelor programmes are limited. Students who apply for a semester on a top-up bachelor programme will be required to send extra documentation to prove they fulfil the above-mentioned criteria. Only students with the relevant background and highest grades will be admitted.

Make sure your second option is a semester package at AP Degree level and that both your options are approved by your home institution before applying.

4. Information about exams

One interdisciplinary exam will be organized at the end of the semester covering subjects described below. One grade will be awarded according to the 7-point grading scale.

For general information about exams and grading scale, please check the relevant chapter.

5. Distribution of subjects

	International Marketing and Sales	Organisation, Management, Supply Chain	Economics	Law	Methodology	Total ECTS
Theme 1: The Company's Strategic Basis (Business Model)	2,5	2,0	2,0	1,0	2,5	10
Theme 2: The Customer as the Starting Point	9,0	3,5	3,0	3,0	1,5	20
Total ECTS	11,5	5,5	5	4	4	30

6. Detailed description of the course elements:

Course element contents:	ECTS
The Company's Strategic Basis (Business Model)	10

Content:

The subject element includes strategic analyses of companies, including strategic directions and business models for B2C, B2B and B2G, and analyses of the company's resources and competencies, including in relation to the company's innovative platform, processes and driving forces. The analyses also incorporate the company's economic and financial foundation, cost perceptions, capacity utilisation and product mix optimisation.

The subject element covers an understanding of the supply chain/SCM and the geographical location of production and competence centres, including choices for distribution channels, partnerships and outsourcing. The subject element also covers various legal aspects, including sources of law, international private law, types of conflict resolution and distribution forms.

The subject element also includes a review of the scientific theory paradigms and perspectives on knowledge, insight and knowledge recognition.

Learning objectives:

Knowledge

The student must:

- Have knowledge of different types of business models and of models and theories used to understand a company's strategic base
- Have knowledge about different strategic directions related to the concept of innovation
- Have knowledge of disruption as a concept and development direction
- Have knowledge and understanding of relevant theories and models to analyse the company's strategic platform, including resources and competences
- Have knowledge and understanding of theories about the company's innovative platform, creative processes and management
- Have knowledge of the elements of a company's supply chain (both functional and innovative products)
- Have knowledge of theories and models to assess insourcing and outsourcing
- Have knowledge and understanding of relevant economic models and theories in relation to the business model
- Have knowledge of localization analysis and distribution strategy (both digital and physical – omni-channel)
- Have knowledge and understanding of relevant economic models in relation to business models
- Have knowledge of important perspectives on knowledge, insight and cognition
- Have knowledge and understanding of key paradigm shifts in business economics
- Have a solid understanding of what knowledge is in a sociological sense and be aware of the role of knowledge in a business economics perspective
- Have a basic knowledge of major theoretical issues and schools within a social science perspective and particularly in the core areas of marketing, organisation/management and economics
- Have knowledge of international sources of law and their mutual relations as well as relations with national legal sources
- Have knowledge of international dispute resolution

Skills

The student must:

- Be able to apply and discuss the different strategic directions
- Be able to use disruption and innovation to challenge a company's existing business model
- Be able to analyse and evaluate the company's strategic and innovative platform and development opportunities
- Be able to assess the impact of a company's site selection and form of distribution/channel
- Be able to assess the consequences of the choice of external partners
- Be able to assess the company's economic and financial base using relevant indicators
- Be able to carry out an economic analysis, assessment and prioritisation of product mixes in different cost models
- Be able to critically apply empirical-analytical theory and discuss what knowledge is, how it is generated and how it interacts with practice
- Be able to communicate theoretical issues and consequences to peers
- Be able to assess theoretical and practical issues in relation to the philosophy of science
- Be able to apply rules of applicable law and jurisdiction in international sales and assess the consequences of the choices made
- Be able to apply the rules of the different distribution forms in an analysis and assessment of the choice of distribution form

Competencies

The student can:

- Independently participate in interdisciplinary cooperation in order to assess a company's strategic position
- Make recommendations for the optimization of a company's business model
- Work with innovation in all phases of the business model
- Participate in the multidisciplinary development of a company's innovative foundation
- Identify elements of value creation in the supply chain
- Develop economic decision making options related to corporate strategy, business cases, cost and price structure
- Discuss different epistemological paradigms
- Discuss hypotheses in relation to different epistemological paradigms

    Discuss the consequences of the epistemological choice

The Customer as the Starting Point	20

Content:

The subject element covers analyses of current and potential customers, including their strategic situation, needs and wishes. These analyses provide the basis for developing the company's strategies and market offerings for existing and potential customers. In this connection, the element covers work on the development and retention of the customer base through relationship strategies.

The subject element also covers analyses of the company's sales organisation in relation to the sales team and purchase centre, including relations to other corporate functions and business partners. It also covers work with international strategies for the company's supply chain and logistic support for sales, and the integration of various sales channels – omni-channel, digital and physical. Strategies are based on an analysis of the company's financial situation, including product and customer mix, economic customer life cycle analyses and the legal context, including international purchasing and contract law, transport law and public procurement law.

The subject element's analyses and strategies are based on the students' ability to combine commercial theory with methodology in scientific projects.

Learning objectives:

Knowledge

The student must:

- Have knowledge and understanding of relevant theories and models to analyse a company's competencies, customer base and development of a customer portfolio including profitability reports
- Have knowledge and understanding of the company's market opportunities and possible marketing strategies
- Have knowledge of general strategic approaches and models in structuring and organising sales
- Have knowledge and understanding of implementability and its relationship to other departments and partners, including competence assessment and communication structure
- Understand important implications for the company's logistics and supply chain of internationalization and innovative projects
- Be able to understand the theoretical tools in relation to the company's supply chain for the development of international sales bases – strategic, tactical and operational
- Have knowledge and understanding of tools and methods for the assessment of customer and product portfolios in relation to profitability, as well as alternative methods for profitability calculations
- Have gained an understanding of the application of methodology in project and report writing following the principles of scholarly work

- Have knowledge about how to collect, interpret and analyse data
- Have knowledge of the general principles of EU procurement rules for sales to public authorities

Skills

The student must:

- Be able to analyse and evaluate both the overall customer base and the individual customers in relation to the company's value proposition using methods and tools for analysing customer behaviour, including the use of big data and profitability reports
- Be able to carry out an assessment of customers profitability and future earnings potential and evaluate the relevance of a resource-based approach or a market approach
- Be able to develop the company's marketing strategies
- Starting from the customer, be able to analyse and assess the organization of the sale, including relationships with other business functions
- Be able to analyse and assess skill needs in the sales function in relation to customer requirements
- Be able to analyse and assess an internationally focused company's choice of supply chain with the involvement of relevant theory in the field
- Be able to analyse and organize the company's supply chain in relation to the sales organization and development of partnerships with a focus on ensuring customer satisfaction and quality of experience
- Be able to apply relevant models for the development of solutions for the company's supply chain in innovative projects
- Be able to evaluate and use methods and tools for the company's supply chain to support the tactical and operational sales
- Be able to calculate and assess the profitability of alternative cost allocation methods: Activity-Based Costing and traditional standard cost
- Be able to identify relevant total life cycle costs (TLCC)
- Be able to reflect on and engage in discussion about business financial perspectives in scientific contexts
- Be able to develop problem analysis and perform problem definition and put forward problems and hypotheses
- Be able to assess and select ideal survey forms for a given issue and compare critically to the survey forms used in practice
- Have knowledge of the transportation contract in maritime and road transport, with particular emphasis on carrier liability

Competencies

The student can:

- Independently participate in multidisciplinary teams in relation to the company's marketing intelligence, with customers as a starting point
- Select relevant data for analysis of the company's customer care and customer development structure
- Enter into a discussion about the company's ability to match the sales function to customer expectations
- Identify challenges in the company's supply chain in innovative projects
- Ensure the involvement of the company's supply chain in developing the sales strategy
- Prepare a reasoned decision presentation on the basis of alternative cost allocation models
- Evaluate a customer profitability portfolio and expected future earnings potential
- Critically assess opportunities and constraints related to quantitative and qualitative data
- Collect, process and interpret quantitative and qualitative data and relate it critically to existing or new data material, including knowledge of measurement scales and being able to judge the relevance, timeliness, validity, reliability and generalizability
- Prepare scientific reports and projects, including disseminating findings and solutions etc. in a clear and easily readable report containing a clear problem definition, methodology considerations and an evaluation of findings and prerequisites, reliability and validity
    - Independently participate in professional and interdisciplinary cooperation on the conclusion of international sales agreements, with special emphasis on: CISG (International contracts and the international sale); Terms and conditions; INCOTERMS
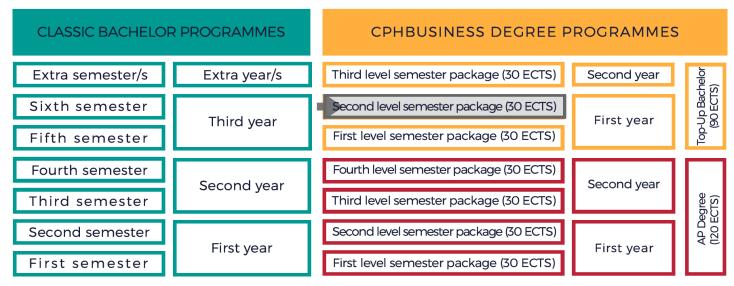- Securing the purchase price

*S-INS-2-E-19 (International Sales and Marketing level 2 Søerne)

The courses of this semester package take place at Cphbusiness Søerne (Nansensgade 19, 1366 Copenhagen K).

1. An illustration of the level of the semester package

The second semester of the Top-Up Bachelor in International Sales and Marketing is equivalent to the sixth semester of a classic Bachelor programme.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

2. Admission requirements

Academic requirements

> **BEFORE YOU APPLY FOR THIS SEMESTER PACKAGE**
>
> MAKE SURE YOU HAVE THE FOLLOWING:
>
> At least 2 years (the equivalent of an AP Degree (120 ECTS)) of undergraduate studies within Marketing, Economics and Management, Organisation, Supply Chain Management and Logistics, including:
>
> - Marketing - 20 ECTS
> - Management, Organisation, Supply Chain Management, Logistics - 10 ECTS
> - Economics - 15 ECTS

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages)** in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

3. Practical information

Places on our top-up programmes are limited. Students who apply for a semester on a top-up programme will be required to send extra documentation to prove they fulfil the above-mentioned criteria. Only students with the relevant background and highest grades will be admitted.

Make sure your second option is a semester package at AP Degree level and that both your options are approved by your home institution before applying.

4. Information about exams

Theme 3 and Theme 4 will be evaluated with the help of two exams. Each exam will be graded on the 7-point grading scale and an overall grade will be calculated to cover both themes.

Elective subjects will also conclude with an exam each and an overall grade (7-point grading scale) will be calculated as above.

For [general information about exams and grading scale, please check the relevant chapter.](#)

5. Distribution of subjects

	International Marketing and Sales	Organisation, Management, Supply Chain	Economics	Law	Methodology	Elective subject	Total ECTS
Theme 3: Industry and Competitors	2,0	1,0	1,0	0,5	0,5	0	5
Theme 4: Sales Management and the Sales Development of the Company	4,0	3,5	1,5	0,5	0,5	0	10
Elective subject	0	0	0	0	0	15	15
Total	6	4,5	2,5	1	1	15	30

6. Detailed description of the course elements:

OBLIGATORY SUBJECTS

Contents	ECTS
Industry and Competitors	5

Content:

The subject element covers analyses of competition, competitors and cluster and network collaboration, whereby the company can benchmark in relation to the supply chain, social responsibility and sustainability, including CSR, and the international economic environment, and seen in relation to competition law. The subject element also requires a methodical approach to acquiring knowledge based on the theoretical standpoint.

Learning objectives:

Knowledge

The student must:

- Have knowledge of relevant theories and models about competitive positions in the market and how these are implemented
- Have knowledge about different benchmarking models
- Have knowledge of CSR, social responsibility and sustainability
- Have knowledge about basic benchmarking theory and models in SCM
- Have knowledge of financial and non-financial benchmarking
- Have an understanding of international macroeconomic industry environment influences
- Have knowledge of the theory of science, theoretical assumptions and methodological approaches that support the generation of knowledge
- Have knowledge of Danish and European competition law and the interaction between the rules

Skills

The student must:

- Be able to analyse and evaluate a company's competitive position as a basis for development and adaptation of the company's market offerings. In relation to this, be able to benchmark a company in relation to an industry and to the company's closest competitors, including strategies
- Be able to analyse the company's social dimension in relation to the company's strategic position
- Be able to apply relevant theories and models in connection with benchmarking of an international company's supply chain
- Be able to assess international macroeconomic factors that may affect the competitive situation in the industry for a given company
- Be able to assess the risks of international commerce
- Be able to benchmark a company against a competitor or industry and

- Be able to make an assessment of identified international economic conditions in the external environment and assess the impact of such an industry and company
- Collect, process and interpret quantitative and qualitative data and relate it critically to existing or new data material, including knowledge of measurement scales and being able to judge the relevance, timeliness, validity, reliability and generalizability

Competencies

The student can:

- Participate in the company's marketing intelligence with a focus on design and analysis of information about competitive position in the market
- Identify and analyse the specific competitors
- Identify a company's main CSR challenges
- Identify areas for improvement in the company's supply chain, based on benchmarking
- Identify and manage risk and hedging in connection with international trade
- The student has gained experience in the scientific method's limitations

Sales Management and the Sales Development of the Company	10

Content:

The subject element covers insight into the development of international sales strategies, including online and offline strategies, CRM for new and existing customers, customer follow-up, and key account and global account management.

The subject element also covers insight into organisational development and change management, taking into account employment law, and measuring efficiency and risk assessment for the company's supply chain. The subject element covers budgeting, balanced scorecard and the triple bottom line in the selection of strategies for the company. The subject element also requires students to incorporate and reflect on the significance of the theoretical standpoint for projects.

Learning objectives:

Knowledge

The student must:

- Understand and be able to reflect on key theories for the development of the company's sales base using different approaches
- Have knowledge of models and methods for customer follow-up
- Have knowledge and understanding of relevant theories and models related to business models, where sales are the starting point
- Have knowledge and understanding of the organizational consequences of growth
- Have knowledge of the management theories which may support the development of the company's sales base
- Have knowledge about different theories on motivation and incentive strategies
- Have knowledge and understanding of different types of conflict and conflict resolution options
- Have knowledge of situational leadership
- Have knowledge of the criteria for the evaluation of the sales department's efforts
- Have knowledge of tools for measuring the effectiveness of a company's supply chain
- Have knowledge of methods and models for risk assessment of the supply chain
- Understand alternative budget models
- Have knowledge of alternative financial and non-financial reporting forms, including understanding frameworks and legislation related to the company's economic, environmental and social reporting
- Be able to assess the epistemological and methodological issues and integrate an understanding of academic work and methods with professionalism in project and report writing

Skills

The student must:

- Be able to analyse, develop and implement international sales strategies for different business types (industry, sizes, resources etc.).
- Be able to develop and adapt a company's marketing mix for individual clients
- Be able to justify and communicate selected strategies in a sales plan to relevant stakeholders
- Be able to evaluate the activities linked to the company's general marketing mix for customers, and for individual customers, and be able to propose possible changes in strategy and approach
- Be able to develop a plan for the organizations development and assess the impacts when compared with the organizations complexity
- Be able to assess the development of the sales organization
- Be able to assess the competency requirements for the sales team
- Be able to develop strategies for motivation and coaching of the sales staff
- Be able to identify their own learning needs, so that knowledge and skills are developed
- Be able to be included in the evaluation of employees personal, professional, cultural and social skills
- Be able to develop a follow-up plan for the company's business model in relation to measuring the effectiveness of a company's supply chain

- Be able to prepare budget assumptions and prepare and evaluate a total budget for strategic decisions and assess their economic impact
- Be able to make reflections on their own practice
- Be able to make reflections on the scientific methods limitations
- Be able to apply rules of employment in an international context, including compliance with the rules on jurisdiction and applicable law, with special emphasis on recruitment and retention, relocation and dismissal

Competencies

The student can:

- Manage and lead the development of sales strategies in complex situations and based on the involvement of relevant stakeholders
- Work with assessments of the company's overall activities for customers
- Work with a holistic approach on the development of the company's strategic base
- Identify their own learning needs in order to develop and maintain appropriate skills to work from a holistic approach
- Independently analyse and participate in the development of an organizational plan of action to ensure implementation of the sales plan
- Independently participate within and across disciplines in organizational development
- Enter into dialogue with the sales department about optimization of the company's total sales efforts from the perspective of efficiency throughout the supply chain
- Establish a basis for decisions regarding the company's strategy implementation

ELECTIVE SUBJECTS

Students will choose one of the below. Each elective subject has a workload of 10 ECTS.

PROJECT MANAGEMENT AND PROJECT SALES

Purpose & Learning Outcome:

Objectives and contents:
- A general understanding of projects and project sales in a strategic perspective, and how to manage them.
- An in-depth understanding of a business case, both at seller and buyer
- Experience in using theories, models, tools and methods for project sales and management of projects in a professional context
- Understanding the differences in project sales in B2B and B2G.
- Understanding project management in B2C, B2B and B2G.

The topic has two equal foundations: project sales and project management. Please see detailed description of the subjects below.

Project Sales:
Knowledge:

The student should have acquired knowledge about:

- How to define project sales
- Defining and describing the sellers' role within project sales (consultant vs seller)
- Market segmentation of strategic customers and the competitive environment
- Identification of strategic customers and projects
- Identification of customer buying criteria
- The decision process and buying behavior of the customer (identification of stake holders and value chain)
- The process of project sales ("capture planning" within strategic scope of the company)
- Preparation, planning, execution & follow-up of sales meetings
- Requirement to quotations, requirements for public tenders ("the winning proposal")
- Business Case development (both seller´s perspective and customer´s perspective)
- Cost calculations and price settings of sales projects
- Requirements to project team
- Closing and follow-up on projects

Skills:

The student should be able to:

- Define and build a business case

- Understand and define risk elements
- Analyze the stakeholders of a project (both internally at seller and at customer)
- Communicate to project groups
- Produce offers in a formal way, meeting requirements
- Understand the strategic positioning at the customer
- Act as consultant in the seller role

Competences:

The student should have obtained competences in regards to:
- Plan professional project sales by using relevant tools and methods
- Implement project sales and adjusting the sales/customer process continuously

Project management:

Knowledge:

The student should have acquired knowledge about:

- How to define a project and what parameters the project manager can adjust
- Project portfolio management in a company strategic perspective
- How to define the work streams, deliverables, milestones and activities of a project (Stage-Gate and SCRUM)
- How to plan a project by using tools such as a Gantt Chart and the Work Break Down Schedule
- How to define the stakeholders of a project and how to handle their influence by communication
- The role of the project manager and the different roles in a project organization, including the roles of the project team and the steering committee
- The risks in relation to implementation of a project and how to handle it
- Different forms of meetings and their purpose
- The business case and budget of a project

Skills:

The student should be able to:

- To illustrate the purpose and objective of a project by preparing an Objective Break-Down Schedule
- To plan a project by defining work streams, deliverables, milestones and activities in a Work Break Down Schedule and a Gantt Chart
- To do a risk analysis
- To analyze the stakeholders of a project and make a communication plan
- To plan the relevant meetings throughout the implementation of the project
- To make a budget or business case for a project

Competences:

The student should have obtained competences in regards to:

- Plan a project in a professional context by using relevant tools and methods
- Implement a project and adjusting the plan continuously

Content and milestones

Content:

Lesson	Content
Lesson 1	The project concept (PM) Customer profitability/Buying criteria (PS)
Lesson 2	Success with projects (PM) Setting the joint transformation agenda with the strategic customer (PS)
Lesson 3	Planning the project (PM) Integrated value chains & guiding customer business transformation (PS)
Lesson 4	Context and types of projects (PM) Key Account Management (PS)
Lesson 5	Portfolio management (PM) Sales leadership in projects – undertaking the transformative journey (PS)

Milestones:

- Group formation/Abstract for the group work
- Preliminary problem formulation for individual work
- Update individual problem
- Hand in of group work

- Hand in of individual work

Evaluation Criteria
The evaluation criteria of the four mandatory elements that are graded are as follows:

Element	Evaluation criteria
A: Written Element, Part 1: The Group Report (25%)	Theoretical knowledge demonstrated Relevance of data Written presentation
B: Written Element, Part 2: An individual article or creative product (25%)	Written presentation Theoretical knowledge demonstrated Relevance of data or creative content
C: Oral Element, Part 1: Group presentation to an audience (10%)	Structure and content of presentation Presentation skills
D: Oral Element, Part 2: Individual oral exam (40%)	Ability to demonstrate knowledge of international project management Presentation skills

Feedback
Verbal feedback will be provided:
- after each milestone
- after the group presentation (no grade)
- after the individual oral exam (including a weighted grade for the entire course)

Tentative Literature (on Project Sales)
1) P.Kotler, M Dingena & W.Pfoertsch, Transformational Sales
2) Articles TBD

Tentative Literature (on Project Management)
1) Alam and Gühl, 2016, Project management in practice, Springer Verlag
2) Andersen, E.S., 2016, Do project managers have different perspectives on project management, International Journal of Project Management
3) Cicmil et al, 2017, Responsible forms of project management education: Theoretical plurality and reflective pedagogies, International Journal of Project Management
4) Christiansen et al, 2008, From models to practice: decision making at portfolio meetings, International Journal of Quality & Reliability Management
5) Cunha et al, 2003, Order and Disorder in Product Innovation Models, Creativity and innovation management
6) Cooper et al, 2001, Portfolio Management for New Product Development: Results of an Industry Practices Study, R&D Management
7) Dvir et al, 2003, An empirical analysis of the relationship between project planning and project success, International Journal of Project Management
8) Flyvbjerg, B. 2005, Deception by Design: the politics of megaprojects, Harvard Design Magazine
9) Fortune et al, 2012, Looking again at current practice in project management", International Journal of Managing Projects in Business
10) Geraldi et al, 2016, From Visions of Grandeur to Grand Failure, Proceedings of EURAM 2016 Implement Consulting Group, Double Half, projecthalfdouble.dk
11) Kreiner, K., 2014, Restoring Project Success as Phenomenon, Copenhagen Business School Press
12) LaBrosse, 2010, Project-portfolio management, Employment relations today
13) Lovallo et al, 2003, Delusions of Success: How Optimism Undermines Executives' Decisions, Harvard Business Review
14) Martinsuo, 2013, project portfolio management in practice, International Journal of Project Management
15) Palmquist et al, 2013, "Parallel Worlds: Agile and Waterfall Differences and Similarities, CMU
16) Richardson et al, 2015, Is Project Management Still an Accidental Profession? A Qualitative Study of Career Trajectory, SAGE open
17) Serrador et al, 2013, The Relationship Between Project Success and Project Efficiency, Project Management Journal
18) Standish Group, 2014, CHAOS
19) Shenhar et al, 1997, Mapping the dimensions of project success, Project Management Journal
20) Turner et al, 2005, The project manager's leadership style as a success factor on projects, Project Management Journal
21) Turner et al, 2012, Project management in small to medium-sized enterprises: Tailoring the practices to the size of company, Management Decision

PURCHASING, NEGOTIATION AND BIG DATA

Objectives and contents:

General understanding of the role in a company as well as of the practical implementation, including negotiation at all levels:

- In-depth understanding of the purchasing process
- Ability to apply common theories within the subject area in order to solve practical issues inspired by real life
- Understanding for the specific issues related to purchasing in the public sector
- Understanding project management in B2C, B2B and B2G
- Ability to build information based on data and provide input for the negotiation process and the SLA this is based upon.

Learning outcome:

The topic has three equal foundations: purchasing, negotiation and big data. Please see a description of all three elements below.

Literature: Articles and books.

Content:

- Lectures
- Guest lecturers
- Group work with data
- Group work based on Cases
- Negotiation simulations

Milestones:

1: Preparing and participating in a negotiation case
2: Group exam
3: Preliminary problem statement for the individual assignment
4: Status update (individual work) to be discussed with tutoring voting.

Exam and Evaluation Criteria:

5 ECTS ELECTIVE EXAM (Big Data)

Element	Evaluation criteria
Written Element: The Group Report (50%)	Theoretical knowledge demonstrated Relevance of data Written presentation
Oral Element: Group presentation to an audience (50%)	Structure and content of presentation Presentation skills

10 ECTS ELECTIVE EXAM (Purchasing and Negotiation)

Element	Evaluation criteria
Written Element: An individual article or creative product (50%)	Written presentation Theoretical knowledge demonstrated Relevance of data or creative content
Oral Element: Individual oral exam (50%)	Ability to demonstrate a good knowledge of international economics Presentation skills

Purchasing

Knowledge:

The student will have achieved knowledge about the following:

- The different steps in the purchasing process
- Developing purchasing strategies per product or product area
- Writing/building requirement specifications
- Competition theory and market forms
- Supplier search and supplier selection
- EU procurement rules
- Relations between buyer and supplier
- Power distance

- Calculation of net purchase price and long term costs (TCA and TCO)
- Contract management
- Use of IT in the purchasing process, including knowledge about specific tools

Skills:

The student will be able to:

- Collect and evaluate requirements in a given purchasing situation
- Excecute a requirements specification which can form the basis for obtaining offers
- Compare and evaluate offers
- Develop processes for the daily trade
- Follow-up on deliveries
- Perform ongoing evaluation of the selected suppliers' performance
- Initialize renegotiation of existing contracts

Competencies:

The student will obtain the following competencies:

- Plan implementation of purchasing by using relevant tools, theories and methods
- Evaluate suppliers and their performance with the purpose of optimizing the purchase and the purchasing process

Negotiation

Knowledge:

The student will have achieved knowledge about the following:

- Phases and steps in the negotiation process
- Own negotiation profile
- Negotiation strategy and tactics
- Planning and preparing
- Questioning techniques

Skills:

The student will be able to:

Set goals for the negotiation results

- Choose a strategy by choosing relevant models and theories, for example the Kraljic model
- Analyze the supplier's negotiation profile
- Analyze the supplier's negotiation strength
- Controlling the negotiation process
- Complete the negotiation process

Competencies:

The student will obtain the following competencies:

- Ability to plan and execute a negotiation process by applying relevant tools, theories and models
- Ability to communicate efficiently during the negotiation process
- Ability to reflect upon the progress of the negotiation process

Big Data

Knowledge:

The student will have achieved knowledge about the following:

- Theories and models and basic ideas of big data the business value approach
- The role of big data in BtB buyer and supplier relations ships
- Providing data for monitoring the purchasing
- Providing data monitoring quality and performance
- Providing data to be used as input for the negotiation process

Skills:

The student will be able to:

- Analyze data to provide business information
- Analyze big data to draw key patterns
- Evaluate big data to provide input to purchasing negotiation
- Analyze big data with IBM Watson Analytical tools
- Build presentations based on data

Competencies:

The student will obtain the following competencies:

- Plan and evaluate the role of big data in BtB buyer and supplier relations ships

- Evaluate data for monitoring the purchasing
- Evaluate data monitoring quality and performance
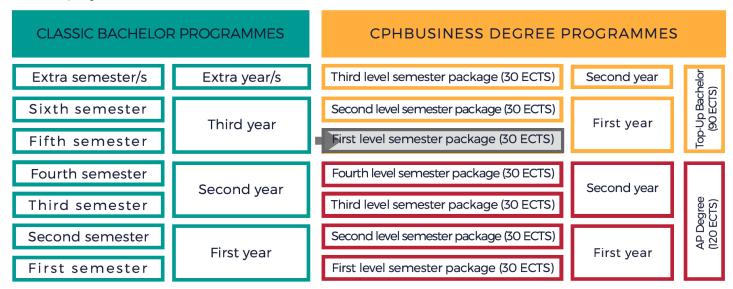- Evaluate data to be used as input for the negotiation process

Courses in Software Development

*L-SOD-1-E-19 (Software Development level 1 Lyngby)

The courses of this semester package take place at Cphbusiness Lyngby (Nørgaardsvej 30, 2800 Kgs. Lyngby).

1. An illustration of the level of the semester package

The first semester of the Top-Up Bachelor in Software Development is equivalent to the fifth semester of a classic Bachelor programme.

CLASSIC BACHELOR PROGRAMMES		CPHBUSINESS DEGREE PROGRAMMES		
Extra semester/s	Extra year/s	Third level semester package (30 ECTS)	Second year	Top-Up Bachelor (90 ECTS)
Sixth semester	Third year	Second level semester package (30 ECTS)	First year	
Fifth semester		First level semester package (30 ECTS)		
Fourth semester	Second year	Fourth level semester package (30 ECTS)	Second year	AP Degree (120 ECTS)
Third semester		Third level semester package (30 ECTS)		
Second semester	First year	Second level semester package (30 ECTS)	First year	
First semester		First level semester package (30 ECTS)		

2. Admission requirements

Academic requirements

> **BEFORE YOU APPLY FOR THIS SEMESTER PACKAGE**
>
> MAKE SURE YOU HAVE THE FOLLOWING:
>
> At least 2 – 3 years (150 ECTS) of undergraduate studies within computer science including
>
> - Object Oriented Programming - 40 ECTS
> - Object Oriented Analysis and Design - 30 ECTS
> - Distributed Systems - 15 ECTS
> - Databases - 10 ECTS

Language requirements

Students MUST have English qualifications corresponding to **TOEFL 550 or IELTS 6.0.** - level B2 on CEFR (**Common European Framework for Languages**) in order to be able to participate in class. Official language tests are not required, but we recommend our partner institutions ensure that nominated students' level of English meets the above-mentioned criteria.

Please note a student's ability to read, write, speak and understand English will highly influence the quality of the study abroad period and the student's ability to pass exams.

As an extra service to our international exchange students and partners, and to ensure a satisfactory academic outcome of the students' stay here, we may use Skype/telephone conversations with nominees before accepting them for a study programme.

3. Practical information

Places on our top-up bachelor programmes are limited. Students who apply for a semester on a top-up bachelor programme will be required to send extra documentation to prove they fulfil the above-mentioned criteria. Only students with the relevant background and highest grades will be admitted.

Make sure your second option is a semester package at AP Degree level and that both your options are approved by your home institution before applying.

4. Information about exams

There will be an exam concluding each of the subjects mentioned below. Each will be graded according to the 7-point grading scale.

For general information about exams and grading scale, please check the relevant chapter.

5. Distribution of subjects

Subject	ECTS
Exploration and Presentation	5
Contents: The educational element Exploration and Presentation will contribute to the student's ability to explore and present knowledge relevant to professional software development on a methodological and systematic basis. The student should be able to reflect on the industry's as well as his/her own practice and thereby contribute to the development of the profession. Learning Objectives: *Knowledge* The student has knowledge about: • Key concepts in academic studies • Types of sources and their quality • Methodology and quality assessment of data and knowledge • Different forms of communication *Skills* The student can: • Identify and define problems and issues • Choose suitable research methods for a given problem • Carry out investigations methodically • Draw conclusions from the results of the studies and outline these • Convey the study to well-defined audiences *Competencies* The student can: • Find and quality assess sources of professional knowledge • Contribute to the creation of new professional knowledge through systematic studies and exploration.	
Systems Integration	10
Content: This subject element must help ensure that the student develops the competencies to be able to work with technical system integration. After completing this module, the student must be able to integrate existing systems in connection with the development of new systems, and develop new systems supporting future integration. Learning objectives: *Knowledge* The student must have knowledge of: • Business considerations in relation to system integration • Standards and standards organisations • Storage, transformation and integration of data sources • The concept of services and their ties to service-oriented architectures • Technologies which can be used to implement a service-oriented architecture • Tools for integration *Skills* The student can: • Use an object-oriented system in a service-oriented architecture • Design a system that is easy to integrate with other systems, and uses existing services • Transform or expand a system so that it can function in a service-oriented architecture • Use patterns that support system integration	

- Integrate generic and other systems
- Choose from various integration methods
- Translate elements in a business strategy into specific requirements for system integration

Competencies
The student can:
- Choose from various integration techniques
- Acquire knowledge of developments in standards for integration
- Adapt IT architecture to take into account future system integration.

Development of Large Systems	10

Content:
The aim of the subject element is to train the student to develop large- scale IT systems, where scalability is a key characteristic. The student must have knowledge of how key system development methods handle issues related to scalability and the development of large distributed systems. The student must have knowledge of concepts, techniques and technologies for the continuous integration and delivery of software-based systems. The student must be able to design, implement, and maintain large distributed systems in distributed development teams.

Learning objectives:
Knowledge
The student must have knowledge of:
- Issues related to the development of distributed and large-scale IT systems, and how disciplined and agile development methods prescribe how these issues should be handled
- The advantages, disadvantages and costs of using a system for the continuous integration and delivery of IT systems
- Quality criteria for the design of interfaces to subsystems
- Configuration and error reporting systems dedicated to the development of large distributed systems

Skills
The student can:
- Apply techniques for dividing a system into subsystems
- Design and specify requirements for subsystems
- Use version control systems dedicated to the development of large distributed systems in a distributed development team
- Use a system for continuous integration and delivery
- Use architecture patterns dedicated to the development of large distributed systems

Competencies
The student can:
- Cooperate in large systems development organizations
- Participate in globally distributed development
- Adapt development methods and processes to the development of large distributed systems.

Elective subject	5

Students must choose from below:

<u>Business Intelligence (5 ECTS)</u>

Contents:
The course consists of two blocks. A first block on fundamentals of data processing and a second block on basics of statistical modelling and machine learning. The first block gives an introduction to the programming language Python, shows how to apply it to collect data from various sources, preprocess data and to visualise data with different mechanisms. The second block focuses on how to apply Python's scientific libraries to answer various business questions with the help of appropriate statistical models and machine learning techniques.

Learning Objectives:
Knowledge
The student will possess knowledge of:
- Python programming language constructs and basic scientific API usage.
- Different representative business questions and how to answer them with the help of appropriate statistical models and machine learning mechanisms and technologies.
- Basic terminology of Business Intelligence, Machine Learning, and Data Science.

Skills
The students will be able to:
- Write Python scripts and programs using common language constructs in the read-eval-print-loop (REPL), "Jupyter Notebooks", as well as stand-alone programs.
- Collect and download data from various sources programmatically, including different file formats and data distributed on the web.
- Apply Python's scientific libraries (Numpy and Pandas) for preprocessing, filtering and analysis of data.
- Create various types of plots programmatically to share insight into data.

Competencies
The students will be able to:
- Have a basic understanding and knowledge of various terms, models and tests in statistics.

- Compute basic statistics on data using the Python's scientific stack and the Sklearn library.
- Develop an informed guess of when to choose a certain model to answer a concrete type of question and apply technology appropriately.

<u>Discreet mathematics (5 ECTS)</u>

Contents:
The course focuses on logic and its use in computer science applications.

Learning Objectives:
Knowledge
The student will possess knowledge of:
- Logic and reasoning
- Predicates and quantifiers
- Set notations and set theory
- Regular expressions and finite-state automata
- Sequences and induction
- Relations
- Static analysis and Design by Contract
Skills and competencies
The student will be able to:
- Reason for the correctness of statements using Boolean algebra and truth tables
- Write small programs in a program based on predicate logic
- Understand the properties of sets and operations on sets
- Implement and use regular expression as a finite-state automaton to evaluate a language.
- Optimize code using induction rules, understand the basics of recursion
- Understand the properties of relations and the basis of databases and static analysis
- Create simple static analysis and write code in a Design by Contract language (C#)

Click here to return to
Table of Contents