

**MÄLARDALEN UNIVERSITY**  
**SCHOOL OF BUSINESS,  
SOCIETY AND ENGINEERING**

**ACADEMIC YEAR**

**2021 – 2022**

**SPRING SEMESTER 2022**

**COURSE OFFER  
FOR  
EXCHANGE STUDENTS**



***MÄLARDALEN UNIVERSITY***  
***SWEDEN***

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## MÄLARDALEN UNIVERSITY

Mälardalen University (MDH) was founded in 1977 to meet the region's need for education and research. Today MDH has 16 731 students and 900 employees, about 500 of whom are teachers at its four schools:

- School of Business, Society and Engineering (EST)
- School of Education, Culture and Communication (UKK)
- School of Health, Care and Social Welfare (HVV)
- School of Innovation, Design and Engineering (IDT)

MDH is signatory of Magna Charta and as such emphasizes strong links between education and research, with value and applicability as key concepts.

MDH has campuses in the cities of Eskilstuna and Västerås, both of which are situated on hour from Stockholm. The population of the Mälardalen region comprises about three million people and a range of global companies is active here.

## SCHOOL OF BUSINESS, SOCIETY AND ENGINEERING

The School of Business, Society and Engineering (EST) offers study programs at bachelor and master level:

LEVEL	PROGRAMME	LANGUAGE OF INSTRUCTION
Bachelor	Building Engineering	Swedish
Bachelor	Business Studies	Swedish
Bachelor	Energy Engineering	Swedish
Bachelor	International Business Management*	English
Bachelor	International Marketing	Swedish
Bachelor	Political Science	Swedish
Master	Business Administration	Swedish
Master	Energy Systems	Swedish
Master	Engineering and Management	Swedish
Master	Environmental Engineering for Sustainable Development	English
Master	International Marketing*	English
Master	Sustainable Energy Systems	English

\* EFMD Accredited by European Foundation for Management Development (EFMD)

Four programs offered at EST have English as sole language of instruction. In addition, many of the programs that have Swedish as a language of instruction also include courses taught in English and therefore, as an exchange student, you will find plenty of courses at bachelor and master level taught in English. Courses are available within the following areas:

- Building Engineering
- Business Administration
- Commercial Law
- Economics
- Energy Engineering
- Environmental Engineering
- Industrial Engineering and Management
- Political Science
- Statistics

## STUDY PERIODS AND ACADEMIC CALENDAR

The academic year is divided into two semesters of 20 weeks each. Each semester is divided into two study periods, accounting for 10 weeks each. Thus, the academic year has four study periods as follows:

<b>Fall Semester 2021</b> <i>August 30, 2021 – January 16, 2022</i>	<b>Period 1</b> <i>August 30 – November 7, 2021</i>	<b>Period 1a</b> <i>August 30 – October 3, 2021</i>
		<b>Period 1b</b> <i>October 4 – November 7, 2021</i>
	<b>Period 2</b> <i>November 8, 2021 – January 16, 2022</i>	<b>Period 2a</b> <i>November 8 – December 12, 2021</i>
		<b>Period 2b</b> <i>December 13, 2021 – January 16, 2022</i>

<b>Spring Semester 2022</b> <i>January 17 – June 5, 2022</i>	<b>Period 1</b> <i>January 17 – March 27, 2022</i>	<b>Period 1a</b> <i>January 17 – February 20, 2022</i>
		<b>Period 1b</b> <i>February 21 – March 27, 2022</i>
	<b>Period 2</b> <i>March 28 – June 5, 2022</i>	<b>Period 2a</b> <i>March 28 – May 1, 2022</i>
		<b>Period 2b</b> <i>May 2 – June 5, 2022</i>

## WORKLOAD

The ordinary workload per semester is 30 ECTS credits (60 ECTS credits / academic year) where, you usually study 15 ECTS credits each study period depending on the structure of the course. Local students normally do not study more than 30 ECTS credits per semester.

When studying in Sweden, students normally take one course at a time, they do not do parallel studies, the courses stretch for 5 (7,5 ECTS credits) or 10 (15 ECTS credits) weeks. Some courses are however given parallel as part time courses i.e., 7,5 ECTS credits for 10 weeks and 15 ECTS for 20 weeks.

The time spent in a classroom for lectures or a seminar is based on the content of the course and how the lecturer chooses to use the allotted time. If the course is connected to problem solving activities i.e., accounting, students will most likely have more time in the classroom with a lecturer in comparison to a course based on lots of reading and solving cases.

Students studying in Sweden normally do not spend more than 5 – 10 hours per week attending lectures in social science (business, psychology, etc.). Nevertheless, it does not mean that students have 30 – 35 hours free every week. Those 30 – 35 hours should be spent e.g., doing group work, studying and preparing presentations for seminars and lectures. For every course there is usually different types of examinations – each course normally ends with a written examination. In addition, students usually write papers during the course, either individually or as a group and attend seminars, which are **all part of the examination and the final grade**. This can feel quite different if you are used to spending 20 – 25 hours per week attending lecture at your home university.

International students find this way of studying quite frustrating in the beginning but soon realize that the studies here are built on **individual responsibility** and if you are not prepared for seminars and lectures it will be tough to pass the exam or succeed in group assignments.

Normally, you count that 1,5 ECTS credits equal 40 hours of workload (the same as a full-time job) which means that a 5-week course (7,5 ECTS credits) = 200 hour workload and a 10 week course (15 ECTS credits) = 400 hour workload

## FACT SHEET

### Institutional Information

NAME OF INSTITUTION	Mälardalens högskola / Mälardalen University (MDH)
ERASMUS CODE	S VASTERA01
EUC	29369
PIC	999881530
INSTITUTION WEBSITE	<a href="https://mdh.se/">https://mdh.se/</a>
ONLINE COURSE CATALOGUE	<a href="https://www.mdh.se/international/find-your-education">https://www.mdh.se/international/find-your-education</a>

### Main Contacts – School of Business, Society and Engineering (EST)

ACADEMIC CONTACTS	<p>Pablo Camacho Sanhueza Head of Internationalisation @ <a href="mailto:est-international@mdh.se">est-international@mdh.se</a> ☎ +46 21 15 17 82 Main contact for Inbound exchange students</p>	<p>Fredrik Berggren International Liaison Officer @ <a href="mailto:est-international@mdh.se">est-international@mdh.se</a> ☎ +46 21 10 70 53 Main contact for Outbound exchange students</p>
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### General Information

APPLICATION	Nomination deadline	October 10, 2021
	Application deadline	October 15, 2021
HOUSING	<p>Although Mälardalen University does not have any apartments of its own, we cooperate closely with accommodation agencies in the city and inform them about admitted students.</p> <p><a href="#">Bostad Västerås</a> @ <a href="mailto:info@bostadvasteras.se">info@bostadvasteras.se</a> ☎ + 46 21 17 19 50</p>	
INSURANCE	<p>As a student at MDH, we insure you during education hours and during direct travel between your home in Sweden and the University. For more information, please visit: <a href="#">Insurance Terms and Conditions</a></p> <p>Contact person: Martina Delby International Liaison Officer Management Office @ <a href="mailto:exchangein@mdh.se">exchangein@mdh.se</a> ☎ + 46 21 10 73 67</p>	



RESIDENCE PERMIT	For information, please visit: <a href="#">Swedish Migration Agency</a>
STUDYING WITH DISABILITIES	For information, please visit: <a href="https://www.mdh.se/en/malardalen-university/student/study-environment/studying-with-disabilities-">https://www.mdh.se/en/malardalen-university/student/study-environment/studying-with-disabilities-</a> Should you have any questions about specific support, please email us at <a href="mailto:est-international@mdh.se">est-international@mdh.se</a>

## APPLICATION

The application procedure can be divided into the following steps:

1. Nomination
2. Confirmation
3. Online Application
4. Assessment
5. Letter of Admission

Upon receiving this file, steps 1 and 2 have already been completed. Now, it is time to go ahead with step 3!

### Online application

There are two available online applications, however, you only need to complete one of them!

Students nominated within the Erasmus+ Programme will need to complete the **Online application for Erasmus+ exchange** whereas students that have been nominated from partner universities outside of Europe will need to complete the **Online application for Bilateral exchange**. Please select the correct application!

Both online applications will be available from the first week of April through the following link: <https://www.mdh.se/international/exchange-studies/application-for-an-exchange-period>

The online application is formed by 8 sections and besides answering to several questions and indicate which courses you wish to study during your exchange semester at MDH, you will need to upload the following documents:

- Academic transcript of records

This document should include all your studies at university level, even if you have studied at other universities than your current home university. The transcript should be issued in English!

- Certificate of current studies

This document should list all the courses you are currently studying at your home university. This document is especially important if your transcript does not include the courses you are currently taking. The courses listed in this document may be decisive when assessing your eligibility to a course you have applied for.

- Learning agreement (mandatory only for students coming from outside of Europe)

Students coming from one of our Erasmus+ partners are not required to submit a learning agreement at this point. You are required, however, to have gotten approval for the courses you have requested. If you wish you can submit a downloaded copy of your Online Learning Agreement (OLA) however this is not mandatory, and it will only be approved in the dashboard after we have concluded the assessment of your application. I strongly recommend that you wait until after you have gotten an approval on your course choice before beginning your OLA!

Students coming from one of our partners outside of Europe are required to submit a learning agreement that includes all courses listed in the application. Please use the learning agreement that your university requires you to use! If you send an approval form that will be used to then create the Learning Agreement, please keep in mind that due to the number of learning agreements that have to be processed, the new document will only be signed upon your arrival, during the orientation program.

- Passport or National ID card copy.

If you don't have a valid one at the time of application, do not worry, you can submit the one you have, even if it has expired. Just make sure you have an updated and valid one before your travel to Sweden.

- CV

There is no specific format for the CV, just make sure to include relevant information about you and your studies and in case that you have applied for a course that requires job experience, make sure the relevant positions are listed.

Please note that you do not need to complete your application all at once. At any point in the process, you can save the information and complete it at later date/time. Remember to click on "save your progress" before you leave the application or any changes you make won't be saved!

Below, you find some simple tips on regards to the application:

- Complete your application as early as possible! Do not wait until the last week or day to begin preparing your application. Many documents need to be issued or approved by your university and this sometimes takes time.
- Please make sure that you use/indicate an email address that you usually check. Do check your SPAM mailbox also in case any emails from me or Admissions Office end up there!
- If you are interested in participating in the course "Swedish for Foreign Students, Level 1", the course should be included in the application and the learning agreement. The course code is SVA131 and it is worth 7,5 credits.
- All courses you wish to study during your exchange semester or year have to be part of your learning agreement. You cannot participate in a course as just a listener.
- Once you have completed and sent the online application, make sure to save a copy of the pdf file produced for your records. Please note that there is no need for you to send any documents via email or postal mail.

### Assessment

The official assessment of your application begins officially the day after the application deadline however, we will process your application as soon as it is completed and sent to us. Once the application is submitted, we will make a first review of your application in order to determine if all necessary documents have been uploaded and that they can be read/opened. If a document is missing or the file cannot be opened, we will send an email requesting you to review the contents.

Once your application is complete and approved, we will begin assessing your choice of courses. During the assessment period, we may contact you in regard to your choice of courses. We will contact you via email to the email address noted in the application and with a copy to your coordinator. Please make sure you reply to the email per the information provided.

Once the assessment is concluded and the study plan is confirmed exchange students from outside of Europe will receive a scanned copy of the learning agreement dully signed and stamped.

Students from our Erasmus+ partners will receive an email confirmation so that they can go ahead, prepare and send the Online Learning Agreement (OLA) through the Erasmus Dashboard.

#### Letter of Admission

Our Admissions Office will issue a Letter of Admission and send it to you via email. Please note that no hard copy will be sent. The letter of admission will also include your insurance certificate. The electronic copies are accepted by the Swedish Migration Board when applying for a residence permit (if needed).

## SELECTING YOUR COURSES

When selecting courses, please make sure you fulfil the eligibility requirements and that the courses can be combined with other courses you may want to select as per the Schedule Collision Code.

The Schedule Collision Codes are as follows:

SCHEDULE COLLISION CODE	DESCRIPTION
K1	Courses with this code may have lectures, workshops or seminars: <ul style="list-style-type: none"><li>Monday afternoons</li><li>Wednesday mornings</li></ul>
K2	Courses with this code may have lectures, workshops or seminars: <ul style="list-style-type: none"><li>Monday mornings</li><li>Thursday mornings</li></ul>
K3	Courses with this code may have lectures, workshops or seminars: <ul style="list-style-type: none"><li>Tuesday mornings</li><li>Thursday afternoons</li></ul>
K4	Courses with this code may have lectures, workshops or seminars: <ul style="list-style-type: none"><li>Tuesday afternoons</li><li>Friday mornings</li></ul>
K5	Courses with this code may have lectures, workshops or seminars: <ul style="list-style-type: none"><li>Wednesday afternoons</li><li>Friday afternoons</li></ul>
X	Courses with this code cannot be combined with other courses taught during the same study period since these courses are paced full time during the period during which they are taught.
DISTANCE	Courses with this code do not have any physical meetings and can be combined with other courses independent of their Schedule Collision Code.

Please keep in mind that full time studies during the semester are equivalent to 30 ECTS credits – normally 15 ECTS credits in period 1 and 15 ECTS credits in period 2

When selecting courses, please consider the following recommendations:

- Each semester is divided into 2 periods (1 and 2) and each of these periods may be divided into 2 sub-periods (1a and 1b or 2a and 2b)
- 15 ECTS credits courses with Schedule Collision Code X are equivalent to full-time studies during that period.
- 7,5 ECTS credits courses with Schedule Collision Code X during one period can **only** be combined with other 7,5 ECTS credits courses with Schedule Collision code X as long as they are not taught in the same sub-period.

- Courses with the same Schedule Collision Code cannot be combined in the same study period.

You can also select distance courses however if you require a residence permit to study in Sweden, you need to take 30 ECTS credits of campus courses in order to apply for a residence permit at any Swedish embassy.

You can select courses offered by other departments/schools at Mälardalen University. However, admission to these courses may only be granted if you fulfil the eligibility requirements of the course and if there are seats available in the course.

Please note that while other department/schools at Mälardalen University follow the same Schedule Collision Code as presented before, not all courses may have one.

For information about courses offered at other departments/schools, please visit our course database; <https://www.mdh.se/international/find-your-education> (make sure that you select the correct semester; “Courses for exchange students” under type and “English” as the course language)

Please note that a Schedule Collision Course for courses offered by other departments, if one has been assigned, will be available in the online application form.

In case you apply for courses from other departments/schools, you do not need to contact the other department/school directly. We will process your application and inform you of their decision.

## COURSE OFFER OVERVIEW

### Campus courses

	FALL SEMESTER				SPRING SEMESTER			
	1		2		1		2	
	A	B	A	B	A	B	A	B
Building Engineering	Energy Efficient Buildings							
Business Administration	Financial Accounting	Management Accounting	Organization and Leadership		Financial Accounting		Management Accounting	
	Strategy and Management		Marketing Management		International Project Management	E-Commerce and Digitalization	Service Management	Research Methods and Academic Writing
	Business Research Methods		Business Analysis		Managing the Multinational Enterprise		International HRM	The Internationalization Process of Companies
			International Marketing		Marketing Strategy in Practice		Nordic Perspectives on Marketing and Management	
			Digital Service Development		Contemporary Issues in Consumer Marketing			
			Strategy and Management of Digital Business					
			Strategy and International Marketing					
Commercial Law					International Commercial Law			
Economics	Basic Microeconomics		Applied Microeconomics		Macroeconomic Theory			
	Macroeconomic Principles		International Trade Theory		Globalization and International Trade			
	Econometrics		Finance					
	Intermediate Microeconomics		Labour Economics					
Energy Engineering	Sustainable Energy Systems - Project				Heat and Power Technology 2	Sustainable Energy Systems		
	Sustainable Energy Systems – Advanced Studies				International Energy Systems	Process Optimization		
	Introduction to Sustainable Energy Systems				Process Modelling	Process Simulation		
Industrial Engineering and Management	Industrial Economics		Industrial Marketing: Industrial Systems, Market and Value Creating Processes		Global Operations Management	Industrial Change: Challenges and opportunities		
			Organisation: Form and Function		Controlling and Financing of Industrial Operations			
					Managing Industrial Change			
Other Subjects within Technology	Project in Energy and Environmental Engineering (15)				Project in Energy and Environmental Engineering (15)			
	Project in Energy and Environmental Engineering (30)				Project in Energy and Environmental Engineering (30)			
	Project in Future Energy (15)				Project in Future Energy (15)			
	Project in Future Energy (30)				Project in Future Energy (30)			
	Scientific Manuscript in Energy and Environmental Engineering – Process, Method and Implementation				Scientific Manuscript in Energy and Environmental Engineering – Process, Method and Implementation			
Political Science	Urban Politics and Citizenship	Environment and Politics						
Statistics							Statistics for Business	

## Distance courses

	FALL SEMESTER				SPRING SEMESTER			
	1		2		1		2	
	A	B	A	B	A	B	A	B
Business Administration	Consumer Behaviour				Consumer Behaviour			
	Cross-Cultural Management							
Energy Engineering	Implementation of Industrial Process Control		Applied Spectroscopy for Future Energy and Environmental Systems					
	Measurement Techniques in Fluid Flow and Heat Transfer		Power Plants and Processes Monitoring and Diagnostics					
Environmental Engineering	Climate Change and Energy – Past, Present and Future		Ambient Air Quality Management		Water Quality Management		Sustainable Production and Consumption	
			Sustainable Consumption		Freshwater Treatment and Management		Resource Recovery and Solid Waste Management	
			Sustainable Engineering for Developing Countries		Sustainable Cities and Infrastructure			
			Air Quality					
			Atmospheric Pollution and Air Quality					
			Applied Statistics in Engineering					
			Scientific Methods in Environmental Engineering					
			Biomass Utilization and Conversion					



## SPRING SEMESTER 2022

### Courses taught throughout the semester (Periods 1 and 2)

Start: January 17, 2022

End: June 5, 2022

LEVEL	SUBJECT AREA	COURSE CODE	COURSE NAME	CREDITS	SCHEDULE COLLISION CODE
Undergraduate 2 <sup>nd</sup> year	Business Administration	FOA178	Consumer Behaviour	7,5	Distance
Undergraduate 3 <sup>rd</sup> year	Other Subjects within Technology	OAH200	Project in Energy and Environmental Engineering	15	X
		OAH201	Project in Energy and Environmental Engineering	30	X
Graduate 1 <sup>st</sup> year	Other Subjects within Technology	OAH302	Project in Future Energy	15	X
		OAH303	Project in Future Energy	30	X
		OAH304	Scientific Manuscript in Energy and Environmental Engineering - Process, Method and Implementation	30	X

### Courses taught in period 1

Start: January 17, 2022

End: March 27, 2022

LEVEL	SUBJECT AREA	COURSE CODE	COURSE NAME	CREDITS	SCHEDULE COLLISION CODE
Undergraduate 1 <sup>st</sup> year	Business Administration	FOA189	Financial Accounting	7,5	K3
	Commercial Law	HAA104	International Commercial Law	15	X
Undergraduate 2 <sup>nd</sup> year	Business Administration	FOA182	E-Commerce and Digitalization*****	7,5	X
		FOA183	International Project Management****	7,5	X
	Industrial Engineering and Management	IEO110	Global Operations Management***	7,5	K4+K5
		IEO111	Controlling and Financing of Industrial Operations***	7,5	K1
Undergraduate 3 <sup>rd</sup> year	Business Administration	FOA231	Managing the Multinational Enterprise	15	X
		FOA245	Marketing Strategy in Practice	15	X
	Economics	NAA207	Macroeconomic Theory	7,5	K1
		NAA306	Globalization and International Trade	7,5	K4
	Energy Engineering	ERA212	Heat and Power Technology	7,5	K1+K2
Graduate 1 <sup>st</sup> year	Business Administration	FOA325	Contemporary Issues in Consumer Marketing	15	X
	Energy Engineering	ERA301	International Energy Systems	7,5	K1
		ERA311	Process Modelling	7,5	K2
	Environmental Engineering	MTK325	Water Quality Management	7,5	Distance
		MTK329	Freshwater Treatment and Management	7,5	Distance
		MTK330	Sustainable Cities and Infrastructure	7,5	Distance
	Industrial Engineering and Management	IEO300	Managing Industrial Change	7,5	K3

\*\*\* Course taught at the Eskilstuna campus.

\*\*\*\* Course taught only during period 1a (January 17 – February 20, 2022)

\*\*\*\*\* Course taught only during period 1b (February 21 – March 27, 2022)

## Courses taught in period 2

Start: March 28, 2022

End: June 5, 2022

LEVEL	SUBJECT AREA	COURSE CODE	COURSE NAME	CREDITS	SCHEDULE COLLISION CODE
Undergraduate 1 <sup>st</sup> year	Business Administration	FOA171	Management Accounting	7,5	K3
	Statistics	STA105	Statistics for Business*****	7,5	X
Undergraduate 2 <sup>nd</sup> year	Business Administration	FOA162	Research Methods and Academic Writing*****	7,5	X
		FOA177	Service Management*****	7,5	X
		FOA187	The Internationalization Process of Companies*****	7,5	X
		FOA188	International Human Resource Management*****	7,5	X
	Energy Engineering	ERA120	Sustainable Energy Systems***	7,5	K3+K4
Undergraduate 3 <sup>rd</sup> year	Business Administration	FOA252	Nordic Perspectives on Marketing and Management	15	X
Graduate 1 <sup>st</sup> year	Energy Engineering	ERA303	Process Optimization	7,5	K2
		ERA312	Process Simulation	7,5	K1+K3+K4
	Environmental Engineering	MTK331	Sustainable Production and Consumption	7,5	Distance
		MTK332	Resource Recovery and Solid Waste Management	7,5	Distance
	Industrial Engineering and Management	IEO302	Industrial Change: Challenges and Opportunities***	7,5	K3

\*\*\* Course taught at the Eskilstuna campus.

\*\*\*\*\* Course taught only during period 2a (March 28 – May 1, 2022)

\*\*\*\*\* Course taught only during period 2b (May 2 – June 5, 2022)

## BUSINESS ADMINISTRATION COURSES

COURSE CODE	FOA162
COURSE NAME	Research Methods and Academic Writing
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	2b
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA162 – Research Methods and Academic Writing</a>
ELIGIBILITY REQUIREMENTS	30 ECTS credits or equivalent in business administration where at least 22,5 ECTS credits or equivalent must be completed when the course starts.
COURSE CONTENT	The course comprises of basic knowledge and understanding of research as a practice, focusing on collection, processing and presentation of data. It provides knowledge through theoretical learning as well as practical assignments.

COURSE CODE	FOA171
COURSE NAME	Management Accounting
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	2
SCHEDULE COLLISION CODE	K3
LINK TO THE SYLLABUS	<a href="#">FOA171 – Management Accounting</a>
ELIGIBILITY REQUIREMENTS	None
COURSE CONTENT	The course will give focus on management accounting principles and how they are used to implement and control an organization's strategy. The course will provide an understanding of the development of management accounting literature and its application. The course will also focus on how management retrieve and use accounting information for decision-making in regard to an organization's position and strategy.

COURSE CODE	FOA177
COURSE NAME	Service Management
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	2
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA177 – Service Management</a>

#### ELIGIBILITY REQUIREMENTS

30 ECTS credits or equivalent in business administration where at least 22,5 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

During this course the Gaps Model of Service quality will be used as a framework. The lectures and seminars will cover the five gaps starting by discussing service from the customer's point of view and their expectations, behaviour and perceptions. The next part of the course will cover service quality from the management perspective. The course will cover market research, relationships, and service recovery. The next part will discuss designing of services: service standards and physical evidence. The course contains the service employees: role in service, internal marketing and communication of services. This course is built on a chain of student activities, where students plan, implement and report the activities.

COURSE CODE	FOA178
COURSE NAME	Consumer Behaviour
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	1 – 2
SCHEDULE COLLISION CODE	Distance
LINK TO THE SYLLABUS	<a href="#">FOA178 – Consumer Behaviour</a>

#### ELIGIBILITY REQUIREMENTS

30 ECTS credits or equivalent in business administration where at least 22,5 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

The course deals with concepts, models and theories in the contemporary field of consumer behavior and provides perspectives and tools for practical application as well as theoretical analysis. The course is based on flexible learning through individual and group assignments.

COURSE CODE	FOA182
COURSE NAME	E-Commerce and Digitalization
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	1b
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA182 – E-Commerce and Digitalization</a>

#### ELIGIBILITY REQUIREMENTS

30 ECTS credits or equivalent in business administration where at least 22,5 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

The course is introduced with lectures which are based on the course literature and outline the course assignments. This is followed by seminars and laboratories where the students carry out their projects in groups and individually. The course does also have individual activities that are carried out online. The course results in an individual assignment (PRO2) and a student group presentation as well as student peer reviews (PRO1).

COURSE CODE	FOA183
COURSE NAME	International Project Management
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	1a
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA183 – International Project Management</a>

#### ELIGIBILITY REQUIREMENTS

30 ECTS credits or equivalent in business administration where at least 22,5 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

The course covers concepts, models and theories in the contemporary field of international project management. It provides perspectives and tools for work in, as well as theoretical analysis of, international projects. The course is based on flexible learning through individual and group assignments.

COURSE CODE	FOA187
COURSE NAME	The Internationalization Process of Companies
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	2b
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA187 – The Internationalization Process of Companies</a>

#### ELIGIBILITY REQUIREMENTS

30 ECTS credits or equivalent in business administration where at least 22,5 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

The course deals with problems and opportunities that can be linked to companies' internationalization processes. The course deals with various reasons why companies want to become international and how they go about to become international. Entering one or more foreign markets usually requires different types of knowledge and/or resources than are required for domestic market operations. A common obstacle to a successful internationalization process is cultural differences between countries. The emphasis of the course is on the internationalization process and how companies can handle differences between different cultures.

COURSE CODE	FOA188
COURSE NAME	International Human Resource Management
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	2a
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA188 – International Human Resource Management</a>

#### ELIGIBILITY REQUIREMENTS

30 ECTS credits or equivalent in business administration where at least 22,5 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

The course comprises of concepts, models and theories in the contemporary field of international human resource management (IHRM). It provides perspectives and tools for practical application as well as theoretical analysis. The course is based on flexible learning through individual and group assignments.

COURSE CODE	FOA189
COURSE NAME	Financial Accounting
CREDITS	7,5
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	1
SCHEDULE COLLISION CODE	K3
LINK TO THE SYLLABUS	<a href="#">FOA189 – Financial Accounting</a>
ELIGIBILITY REQUIREMENTS	

None

#### COURSE CONTENT

The course will focus on financial accounting and give students an introduction to read and analyze the key financial statements. The course will cover how organizations use these statements and how they can be analyzed to understand the financial position of an organization and its financial strategy. The course will also give an introduction to the different international general accounting standards and how ethical and sustainability aspects can influence financial reporting.

COURSE CODE	FOA231
COURSE NAME	Managing the Multinational Enterprise
CREDITS	15
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	1
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA231 – Managing the Multinational Enterprise</a>
ELIGIBILITY REQUIREMENTS	

60 ECTS credits or equivalent in business administration with gradual progression where at least 45 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

The course deals with the problems management in multinational enterprises face and the strategies they consider to act on their markets, as well a scientific approach to the study of multinational enterprises (MNEs) and their markets.

The course is given in two parallel tracks, one with a project work and one with a practical work placement. In the project track the students work in group with an extensive written paper of scientific nature. In the practical track the student must initiate and establish contact with an enterprise or an organization, that is operating in an international market, and make an agreement about suitable work placement tasks.

COURSE CODE	FOA245
COURSE NAME	Marketing Strategy in Practice
CREDITS	15
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	1
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA245 – Marketing Strategy in Practice</a>

#### ELIGIBILITY REQUIREMENTS

60 ECTS credits or equivalent in business administration with gradual progression where at least 45 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

To achieve the learning objectives of this course, the course is based on a business simulation game. The course provides a basis for making strategic market-based decisions that includes different perspectives on market and actors' conditions. Lectures and discussions reflect the decisions that managers of companies need to make on a daily basis, and with the business simulation the student is given the tools to test and practice their knowledge and skills to form new perspectives and knowledge.

COURSE CODE	FOA252
COURSE NAME	Nordic Perspectives on Marketing and Management
CREDITS	15
SUBJECT AREA	Business Administration
LEVEL	Undergraduate
PERIOD	2
SCHEDULE COLLISION CODE	X

LINK TO THE SYLLABUS [FOA252 – Nordic Perspectives on Marketing and Management](#)

#### ELIGIBILITY REQUIREMENTS

60 ECTS credits or equivalent in business administration with gradual progression where at least 45 ECTS credits or equivalent must be completed when the course starts.

#### COURSE CONTENT

The course consists of four parts:

- Part 1 International Business Culture
- Part 2 Service and Relationship Marketing
- Part 3 Industrial Marketing in a Network Perspective
- Part 4 Case-work in in the different aspects the course covers



COURSE CODE	FOA325
COURSE NAME	Contemporary Issues in Consumer Marketing
CREDITS	15
SUBJECT AREA	Business Administration
LEVEL	Graduate
PERIOD	1
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">FOA325 – Contemporary Issues in Consumer Marketing</a>
ELIGIBILITY REQUIREMENTS	90 ECTS credits or equivalent in business administration with gradual progression.
COURSE CONTENT	The course is focused on consumer marketing and containing one or more components where students must demonstrate that they can apply their knowledge in different contexts. During the course the students discuss and analyze concepts related to current trends in consumer marketing.

## COMMERCIAL LAW COURSES

<b>COURSE CODE</b>	HAA104
<b>COURSE NAME</b>	International Commercial Law
<b>CREDITS</b>	15
<b>SUBJECT AREA</b>	Commercial Law
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	1
<b>SCHEDULE COLLISION CODE</b>	X
<b>LINK TO THE SYLLABUS</b>	<a href="#">HAA104 – International Commercial Law</a>
<b>ELIGIBILITY REQUIREMENTS</b>	None
<b>COURSE CONTENT</b>	<p>The course starts with an introduction to different legal systems and basic introduction to European Union Law. After the introduction, we continue with some IT-law regarding Privacy protection and Criminal law followed by Principals of Commercial contract law. Followed by tax law for individuals working in different countries and after that Intellectual property law and Competition law.</p>

## ECONOMICS COURSES

<b>COURSE CODE</b>	NAA207
<b>COURSE NAME</b>	Macroeconomic Theory
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Economics
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	1
<b>SCHEDULE COLLISION CODE</b>	K1
<b>LINK TO THE SYLLABUS</b>	<a href="#">NAA207 – Macroeconomic Theory</a>
<b>ELIGIBILITY REQUIREMENTS</b>	

60 ECTS credits or equivalent in economics with gradual progression where at least 45 ECTS credits or equivalent must be completed when the course starts.

### **COURSE CONTENT**

The course describes how the production technology in combination with available productive resources determine production and income in an economy, and analyzes how consumers, firms, the government, and the international economy interact on markets for goods, labor, physical and financial capital, and currencies. Models are developed for aggregate analysis of each of these markets and their interdependences. The theories presented deal with output determination, capital formation, consumption, savings, employment, unemployment, international trade, interest rates and exchange rates. The role of the government is analyzed and the scope for relevant economic policy discussed. The emphasis is on the long run development of the economy, such as causes and effects of economic growth and the structure of international trade, but the short and intermediate time horizon with adjustment and business cycles are also treated. A theme in the course is how macroeconomic relationships are founded in microeconomic analysis.

<b>COURSE CODE</b>	NAA306
<b>COURSE NAME</b>	Globalization and International Trade
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Economics
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	1
<b>SCHEDULE COLLISION CODE</b>	K4
<b>LINK TO THE SYLLABUS</b>	<a href="#">NAA306 – Globalization and International Trade</a>
<b>ELIGIBILITY REQUIREMENTS</b>	

60 ECTS credits or equivalent in economics with gradual progression where at least 45 ECTS credits or equivalent must be completed when the course starts.

### **COURSE CONTENT**

The following topics will be covered: Classical, neoclassical and more contemporary trade theories. Technology, factor abundance, comparative advantage, competitive advantage, partial and general equilibrium analysis, trade policy, intra-industry trade, foreign direct investments, gravity, international firms and international interactions will be addressed.

## ENERGY ENGINEERING COURSES

<b>COURSE CODE</b>	ERA120
<b>COURSE NAME</b>	Sustainable Energy Systems
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Energy Engineering
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	2
<b>SCHEDULE COLLISION CODE</b>	K3+K4
<b>LINK TO THE SYLLABUS</b>	<a href="#">ERA120 – Sustainable Energy Systems</a>
<b>ELIGIBILITY REQUIREMENTS</b>	45 ECTS credits or equivalent within an industrial engineering and management program that includes 2,5 ECTS credits or equivalent within thermodynamics.
<b>COURSE CONTENT</b>	<p>The course provides basic knowledge on issues that concern society's energy supply and sustainable development.</p> <p>The course includes a review of thermodynamic cycles for conversion of heat to mechanical energy, steam cycle, gas turbine cycle and the cooling / heat pump process. The course gives an overview of solar, wind and hydropower with regard to technical solutions, environmental impact, economics, problems and opportunities.</p>
<b>COMMENTS</b>	This course is taught at the Eskilstuna campus

<b>COURSE CODE</b>	ERA212
<b>COURSE NAME</b>	Heat and Power Technology 2
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Energy Engineering
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	1
<b>SCHEDULE COLLISION CODE</b>	K1+K2
<b>LINK TO THE SYLLABUS</b>	<a href="#">ERA212 – Heat and Power Technology 2</a>
<b>ELIGIBILITY REQUIREMENTS</b>	90 ECTS credits or equivalent within engineering including 6 ECTS credits or equivalent in applied thermodynamics, 6 ECTS credits or equivalent in fluid mechanics and 7,5 ECTS credits or equivalent in mathematics.
<b>COURSE CONTENT</b>	Gas turbine applications and performance as well as turbomachinery design (the various components and system functionality, design and operation). The energy conversion process in fuel cells. Particular focus will be given to economic aspects up during the operation of energy systems. The course also includes laboratory work, study visits and assignments.

COURSE CODE	ERA301
COURSE NAME	International Energy Systems
CREDITS	7,5
SUBJECT AREA	Energy Engineering
LEVEL	Graduate
PERIOD	1
SCHEDULE COLLISION CODE	K1
LINK TO THE SYLLABUS	<a href="#">ERA301 – International Energy Systems</a>

#### ELIGIBILITY REQUIREMENTS

150 ECTS credits or equivalent within an energy engineering program or 150 ECTS credits or equivalent within an industrial engineering and management program with an energy engineering profile.

#### COURSE CONTENT

The course provides definitions of a system and energy system and what system thinking mean, regarding energy systems development in an international context. It includes examples from different parts of the world, description of stakeholders in the energy sector on global, national, regional and local levels, and how natural science (e.g., geoscience and ecology), technological, economic and political frameworks influence the conditions for energy systems, policy instruments and development targets within the energy sector and local conditions for energy systems.

COURSE CODE	ERA303
COURSE NAME	Process Optimization
CREDITS	7,5
SUBJECT AREA	Energy Engineering
LEVEL	Graduate
PERIOD	2
SCHEDULE COLLISION CODE	K2
LINK TO THE SYLLABUS	<a href="#">ERA303 – Process Optimization</a>

#### ELIGIBILITY REQUIREMENTS

150 ECTS credits or equivalent within energy engineering including the following:

- 7,5 ECTS credits or equivalent from the course Applied Thermodynamics or equivalent
- 7,5 ECTS credits or equivalent from the course Heat and Mass Transfer or equivalent
- 7,5 ECTS credits or equivalent from the course Fluid Dynamics or equivalent
- 22,5 ECTS credits or equivalent in mathematics/applied mathematics where at least 7,5 ECTS credits or equivalent are in single variable calculus or similar.

#### COURSE CONTENT

The theoretical background about setting up objective functions and constraints for energy related processes. Mathematical optimization methods as Lagrange Multipliers method, dynamic programming, search methods, linear programming with and without binary variables. Economic analyses and production planning in district heating systems. Practical use of computer programs for solving optimization problems.

COURSE CODE	ERA311
COURSE NAME	Process Modelling
CREDITS	7,5
SUBJECT AREA	Energy Engineering
LEVEL	Graduate
PERIOD	1
SCHEDULE COLLISION CODE	K2
LINK TO THE SYLLABUS	<a href="#">ERA311 – Process Modelling</a>
<b>ELIGIBILITY REQUIREMENTS</b>	

150 ECTS credits or equivalent within energy engineering including the following:

- 7,5 ECTS credits or equivalent from the course Applied Thermodynamics or equivalent
- 7,5 ECTS credits or equivalent from the course Heat and Mass Transfer or equivalent
- 7,5 ECTS credits or equivalent from the course Fluid Dynamics or equivalent
- 22,5 ECTS credits or equivalent in mathematics/applied mathematics where at least 7,5 ECTS credits or equivalent are in single variable calculus or similar.

#### **COURSE CONTENT**

The course covers principles in model building in process engineering, theory about mathematical modelling within energy processes, analytical and numerical solutions, statistical and empirical modelling.

COURSE CODE	ERA312
COURSE NAME	Process Simulation
CREDITS	7,5
SUBJECT AREA	Energy Engineering
LEVEL	Graduate
PERIOD	2
SCHEDULE COLLISION CODE	K1+K3+K4
LINK TO THE SYLLABUS	<a href="#">ERA312 – Process Simulation</a>
<b>ELIGIBILITY REQUIREMENTS</b>	

150 ECTS credits or equivalent within energy engineering including the following:

- 7,5 ECTS credits or equivalent from the course Applied Thermodynamics or equivalent
- 7,5 ECTS credits or equivalent from the course Heat and Mass Transfer or equivalent
- 7,5 ECTS credits or equivalent from the course Fluid Dynamics or equivalent
- 22,5 ECTS credits or equivalent in mathematics/applied mathematics where at least 7,5 ECTS credits or equivalent are in single variable calculus or similar.

#### **COURSE CONTENT**

The course covers principles in building simulation models in process engineering, use of different tools for dynamic simulation, chemical equilibrium calculations and energy and material balances for different type of problems, simulation solvers, including simultaneous and sequential solvers, model verification and validation.

## ENVIRONMENTAL ENGINEERING COURSES

<b>COURSE CODE</b>	MTK325
<b>COURSE NAME</b>	Water Quality Management
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Environmental Engineering
<b>LEVEL</b>	Graduate
<b>PERIOD</b>	1
<b>SCHEDULE COLLISION CODE</b>	Distance
<b>LINK TO THE SYLLABUS</b>	<a href="#">MTK325 – Water Quality Management</a>
<b>ELIGIBILITY REQUIREMENTS</b>	
	120 ECTS credits or equivalent including at least 90 ECTS credits or equivalent within engineering and 7,5 ECTS credits or equivalent within mathematics.
<b>COURSE CONTENT</b>	
	The course will mainly address the following: Water quality management, the water cycle, physical, chemical and biological aspects of water quality, quality requirements for use of water, pollution sources, loadings and wastewater characterization, current technology available for wastewater treatment and research and development status, and water quality modelling tools.

<b>COURSE CODE</b>	MTK329
<b>COURSE NAME</b>	Freshwater Treatment and Management
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Environmental Engineering
<b>LEVEL</b>	Graduate
<b>PERIOD</b>	1
<b>SCHEDULE COLLISION CODE</b>	Distance
<b>LINK TO THE SYLLABUS</b>	<a href="#">MTK329 – Freshwater Treatment and Management</a>
<b>ELIGIBILITY REQUIREMENTS</b>	
	120 ECTS credits or equivalent including at least 90 ECTS credits or equivalent within engineering and 7,5 ECTS credits or equivalent within mathematics.
<b>COURSE CONTENT</b>	
	Freshwater management; the hydrological cycle, freshwater quality; monitoring; availability and supply; freshwater treatment technologies for production of drinking water; historical and future perspectives

COURSE CODE	MTK330
COURSE NAME	Sustainable Cities and Infrastructure
CREDITS	7,5
SUBJECT AREA	Environmental Engineering
LEVEL	Graduate
PERIOD	1
SCHEDULE COLLISION CODE	Distance
LINK TO THE SYLLABUS	<a href="#">MTK330 – Sustainable Cities and Infrastructure</a>

#### ELIGIBILITY REQUIREMENTS

120 ECTS credits or equivalent including at least 90 ECTS credits or equivalent within engineering and 7,5 ECTS credits or equivalent within mathematics.

#### COURSE CONTENT

The course deals with the concept of sustainable development applied to cities and infrastructures with special focus on water, energy and food aspects. The planning and management of sustainable cities and infrastructures will be also addressed in the course. Case studies of sustainable cities, communities and infrastructure will be investigated during the course.

COURSE CODE	MTK331
COURSE NAME	Sustainable Production and Consumption
CREDITS	7,5
SUBJECT AREA	Environmental Engineering
LEVEL	Graduate
PERIOD	2
SCHEDULE COLLISION CODE	Distance
LINK TO THE SYLLABUS	<a href="#">MTK331 – Sustainable Production and Consumption</a>

#### ELIGIBILITY REQUIREMENTS

120 ECTS credits or equivalent including at least 90 ECTS credits or equivalent within engineering and/or natural sciences.

#### COURSE CONTENT

The course provides an overview of today's consumption from a historical context, including consumption categories, pattern and lifestyles and roles and responsibilities in production and consumption. Moreover, the concept of Sustainable production and consumption is discussed in the context of sustainable development and resource efficiency. Indicators are used to assess measures towards resource efficiency and sustainability.



COURSE CODE	MTK332
COURSE NAME	Resource Recovery and Solid Waste Management
CREDITS	7,5
SUBJECT AREA	Environmental Engineering
LEVEL	Graduate
PERIOD	2
SCHEDULE COLLISION CODE	Distance
LINK TO THE SYLLABUS	<a href="#">MTK332 – Resource Recovery and Solid Waste Management</a>
<b>ELIGIBILITY REQUIREMENTS</b>	
120 ECTS credits or equivalent including at least 90 ECTS credits or equivalent within engineering and/or natural sciences.	
<b>COURSE CONTENT</b>	
The course covers the whole value chain of solid waste management including collection, transportation, separation and treatment. The global environmental issues related with the management of certain solid wastes e.g. e-waste and plastics, are presented. The goals of the 3R's (reduce, reuse and recycle) in preventing waste and conserve natural resources are explained and discussed as an effective concept to reach a sustainable development.	

## INDUSTRIAL ENGINEERING AND MANAGEMENT

<b>COURSE CODE</b>	IEO110
<b>COURSE NAME</b>	Global Operations Management
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Industrial Engineering and Management
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	1
<b>SCHEDULE COLLISION CODE</b>	K4+K5
<b>LINK TO THE SYLLABUS</b>	<a href="#">IEO110 – Global Operations Management</a>
<b>ELIGIBILITY REQUIREMENTS</b>	45 ECTS credits or equivalent within an industrial engineering and management program that include 7,5 ECTS credits or equivalent in industrial engineering and management and 7,5 ECTS credits or equivalent in other engineering subjects.
<b>COURSE CONTENT</b>	This course combines lectures with teamwork in order to offer insight on important areas of operations management, and to give students the possibility to apply such insights on practical cases/problems. Students' previous knowledge and interests are mobilized through workshops/seminars and teamwork. Students are also trained in scientific writing through different activities.
<b>COMMENTS</b>	This course is taught at the Eskilstuna campus

<b>COURSE CODE</b>	IEO111
<b>COURSE NAME</b>	Controlling and Financing of Industrial Operations
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Industrial Engineering and Management
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	1
<b>SCHEDULE COLLISION CODE</b>	K1
<b>LINK TO THE SYLLABUS</b>	<a href="#">IEO111 – Controlling and Financing of Industrial Operations</a>
<b>ELIGIBILITY REQUIREMENTS</b>	20 ECTS credits or equivalent within industrial engineering and management and 7,5 ECTS credits or equivalent within engineering.
<b>COURSE CONTENT</b>	Lectures introducing tools and processes that industrial enterprises implement to efficiently allocate financial resources are combined with group work and individual assignments. During the course, students will be trained in the practical use of methods and models, and will evaluate their usefulness. Finally, the students will actively work to produce financial data to base decisions on when it comes to the optimizations and changes of processes through investments.
<b>COMMENTS</b>	This course is taught at the Eskilstuna campus

COURSE CODE	IEO300
COURSE NAME	Managing Industrial Change
CREDITS	7,5
SUBJECT AREA	Industrial Engineering and Management
LEVEL	Graduate
PERIOD	1
SCHEDULE COLLISION CODE	K3
LINK TO THE SYLLABUS	<a href="#">IEO300 – Managing Industrial Change</a>

#### ELIGIBILITY REQUIREMENTS

120 ECTS credits or equivalent within an industrial engineering and management program that include 30 ECTS credits or equivalent within industrial engineering and management.

#### COURSE CONTENT

The content of the course is summarized as follows:

- What is change?
- Basic terminology
- What needs drive change work?
- Change work in perspective - past, present, future
- Models of change - the individual, the group, the organization
- How organizational change can be analyzed
- What is leadership and why is it important to discuss leadership?
- Theoretical models for leadership
- Problematizing leadership as practice
- Change management in practice - planning, organizing, leading, managing and finalizing
- Problematizing change management as practice

#### COMMENTS

This course is taught at the Eskilstuna campus

<b>COURSE CODE</b>	IEO302
<b>COURSE NAME</b>	Industrial Change: Challenges and Opportunities
<b>CREDITS</b>	7,5
<b>SUBJECT AREA</b>	Industrial Engineering and Management
<b>LEVEL</b>	Graduate
<b>PERIOD</b>	2
<b>SCHEDULE COLLISION CODE</b>	K3
<b>LINK TO THE SYLLABUS</b>	<a href="#">IEO302 – Industrial Change: Challenges and Opportunities</a>
<b>ELIGIBILITY REQUIREMENTS</b>	120 ECTS credits or equivalent within an industrial engineering and management program that include 30 ECTS credits or equivalent within industrial engineering and management.
<b>COURSE CONTENT</b>	<p>The course is based on an online-based lecture series together with seminars and exercises digital or in class. Learning materials and assignments are distributed and handled through the course's digital learning platform.</p> <p>The theoretical basis of the course mainly comes from the areas of Industrial Dynamics and Socio-technical Systems Theory with strong links to Evolutionary Economics and Institutional Economics. The knowledge of Industrial Dynamics and Systems will later be applied practically in the areas of Innovation Management and Strategic Management during the course.</p> <p>Several cases of industrial change will be presented during the course where contemporary cases will be mixed with historical examples of industrial transformations. Examination consists of both individual assignments that will be distributed throughout the course along with a final group assignment.</p>
<b>COMMENTS</b>	This course is taught at the Eskilstuna campus

## OTHER SUBJECTS WITHIN TECHNOLOGY COURSES

<b>COURSE CODE</b>	OAH200
<b>COURSE NAME</b>	Project in Energy and Environmental Engineering
<b>CREDITS</b>	15
<b>SUBJECT AREA</b>	Other Subjects within Technology
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	1 – 2
<b>SCHEDULE COLLISION CODE</b>	X
<b>LINK TO THE SYLLABUS</b>	<a href="#">OAH200 – Project in Energy and Environmental Engineering</a>

### ELIGIBILITY REQUIREMENTS

120 ECTS credits or equivalent of completed courses related to the research profile Future Energy (e.g. intelligent energy systems, renewable energy, power engineering, energy storage, energy markets, energy efficiency, efficient and smart buildings, biological process related to renewable energy, simulation and optimization of process industry) including 30 ECTS credits or equivalent in mathematics/natural sciences courses.

### COURSE CONTENT

The project work carried out within a development project or in cooperation with industrial partners, containing one relevant problem related to the field of Future Energy. The project task contains one of the following elements: measurement / experiments and analysis of results, calculation / simulation / optimization and analysis of results, planning / design.

<b>COURSE CODE</b>	OAH201
<b>COURSE NAME</b>	Project in Energy and Environmental Engineering
<b>CREDITS</b>	30
<b>SUBJECT AREA</b>	Other Subjects within Technology
<b>LEVEL</b>	Undergraduate
<b>PERIOD</b>	1 – 2
<b>SCHEDULE COLLISION CODE</b>	X
<b>LINK TO THE SYLLABUS</b>	<a href="#">OAH201 – Project in Energy and Environmental Engineering</a>

### ELIGIBILITY REQUIREMENTS

120 ECTS credits or equivalent of completed courses related to the research profile Future Energy (e.g. intelligent energy systems, renewable energy, power engineering, energy storage, energy markets, energy efficiency, efficient and smart buildings, biological process related to renewable energy, simulation and optimization of process industry) including 30 ECTS credits or equivalent in mathematics/natural sciences courses.

### COURSE CONTENT

The project work carried out within a development project in Future Energy or in cooperation with industrial partners, containing a relevant problem in related to the field of Future Energy. The project task contains one or more of the following elements: measurement / experiments and analysis of results, calculation / simulation / optimization and analysis of results, planning / design.

COURSE CODE	OAH302
COURSE NAME	Project in Future Energy
CREDITS	15
SUBJECT AREA	Other Subjects within Technology
LEVEL	Graduate
PERIOD	1 – 2
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">OAH302 – Project in Future Energy</a>

#### ELIGIBILITY REQUIREMENTS

180 ECTS credits or equivalent of completed courses related to the research profile Future Energy (e.g. intelligent energy systems, renewable energy, power engineering, energy storage, energy markets, energy efficiency, efficient and smart buildings, biological process related to renewable energy, simulation and optimization of process industry). Alternatively having successfully completed the course OAH201

#### COURSE CONTENT

The advanced project work carried out in a current research project in Future Energy or in cooperation with industrial partner, containing current one research problem in the field. The project task contains one of the following elements: measurement / experiments and analysis of results, calculation / simulation / optimization and analysis of results, planning / design.

COURSE CODE	OAH303
COURSE NAME	Project in Future Energy
CREDITS	30
SUBJECT AREA	Other Subjects within Technology
LEVEL	Graduate
PERIOD	1 – 2
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">OAH303 – Project in Future Energy</a>

#### ELIGIBILITY REQUIREMENTS

180 ECTS credits or equivalent of completed courses related to the research profile Future Energy (e.g. intelligent energy systems, renewable energy, power engineering, energy storage, energy markets, energy efficiency, efficient and smart buildings, biological process related to renewable energy, simulation and optimization of process industry). Alternatively having successfully completed the course OAH201

#### COURSE CONTENT

The advanced project work carried out in a current research project in Future Energy or in cooperation with industrial partner, containing current research problem in the field. The project task contains one or more of the following elements: measurement / experiments and analysis of results, calculation / simulation / optimization and analysis of results, planning / design.

COURSE CODE	OAH304
COURSE NAME	Scientific Manuscript in Energy and Environmental Engineering - Process, Method and Implementation
CREDITS	30
SUBJECT AREA	Other Subjects within Technology
LEVEL	Graduate
PERIOD	1 – 2
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">OAH304 – Scientific Manuscript in Energy and Environmental Engineering - Process, Method and Implementation</a>

#### ELIGIBILITY REQUIREMENTS

180 ECTS credits or equivalent of completed courses related to the research profile Future Energy (e.g. intelligent energy systems, renewable energy, power engineering, energy storage, energy markets, energy efficiency, efficient and smart buildings, biological process related to renewable energy, simulation and optimization of process industry). Alternatively having successfully completed the course OAH201

#### COURSE CONTENT

This course increases the understanding for scientific writing, and it will be conducted parallel with an individual work where results from a project are included in a manuscript. In the course train the skills to write a scientific publication for a scientific journal or conference. The participants will obtain a deepened understanding of the main components in a scientific work, and the importance to describe/understand how knowledge gaps that are addressed. Based on this a clear research question, suitable methodologies, and the scientific result be presented. Finally, the course addresses various strategies on how to use discussions and conclusion parts to conclude the scientific publication.

## STATISTICS COURSES

COURSE CODE	STA105
COURSE NAME	Statistics for Business
CREDITS	7,5
SUBJECT AREA	Statistics
LEVEL	Undergraduate
PERIOD	2a
SCHEDULE COLLISION CODE	X
LINK TO THE SYLLABUS	<a href="#">STA105 – Statistics for Business</a>
ELIGIBILITY REQUIREMENTS	None
COURSE CONTENT	The course introduces statistical concepts and statistical analyses by focusing on descriptive statistics, probability calculations and inferential statistics. As such, the course gives an introduction to applied statistics in a business context.