





UNIVERSITY
OF SKÖVDE

YOU CREATE REALITY



ENRIQUE RUIZ ZÚÑIGA – RESPONSIBLE FOR INTERNATIONALIZATION · SCHOOL OF ENGINEERING SCIENCE
KARLSRUHE INSTITUTE OF TECHNOLOGY – 14TH NOVEMBER 2018



UNIVERSITY
OF SKÖVDE

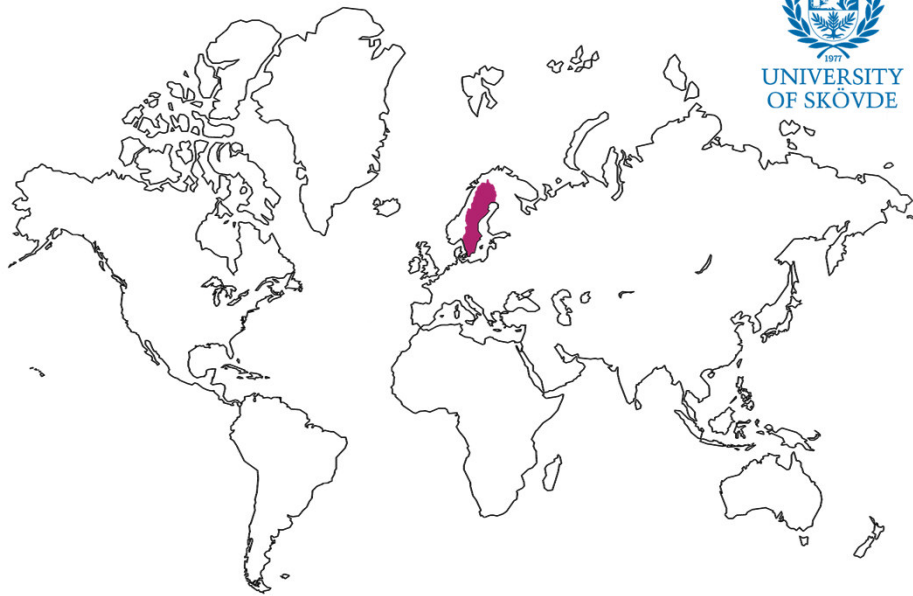
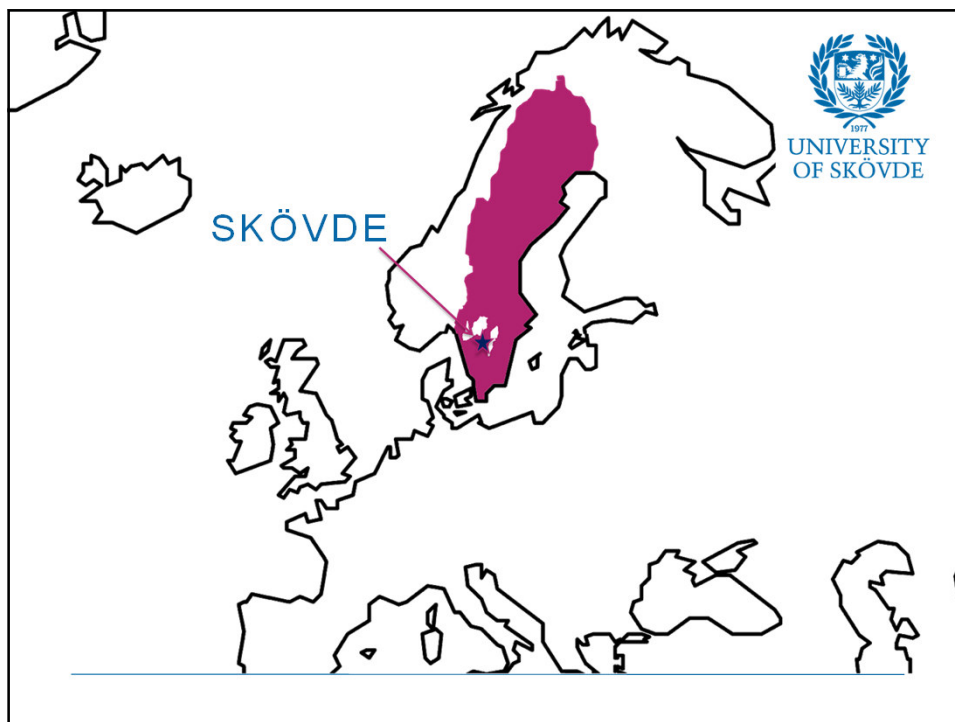


Bild 2



SWEDEN, AN INNOVATIVE COUNTRY



Bild 5

SKÖVDE – A SMALL TOWN THAT MAKES A DIFFERENCE



Bild 6

UNIVERSITY OF SKÖVDE



Established in 1977

UNIVERSITY OF SKÖVDE



MODERN UNIVERISTY WITH AN OPEN AND WELCOMING APPROACH



The Campus

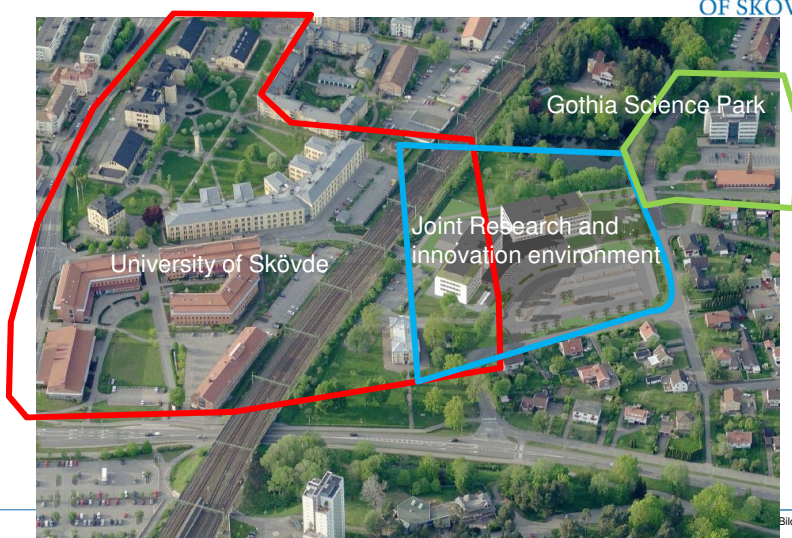
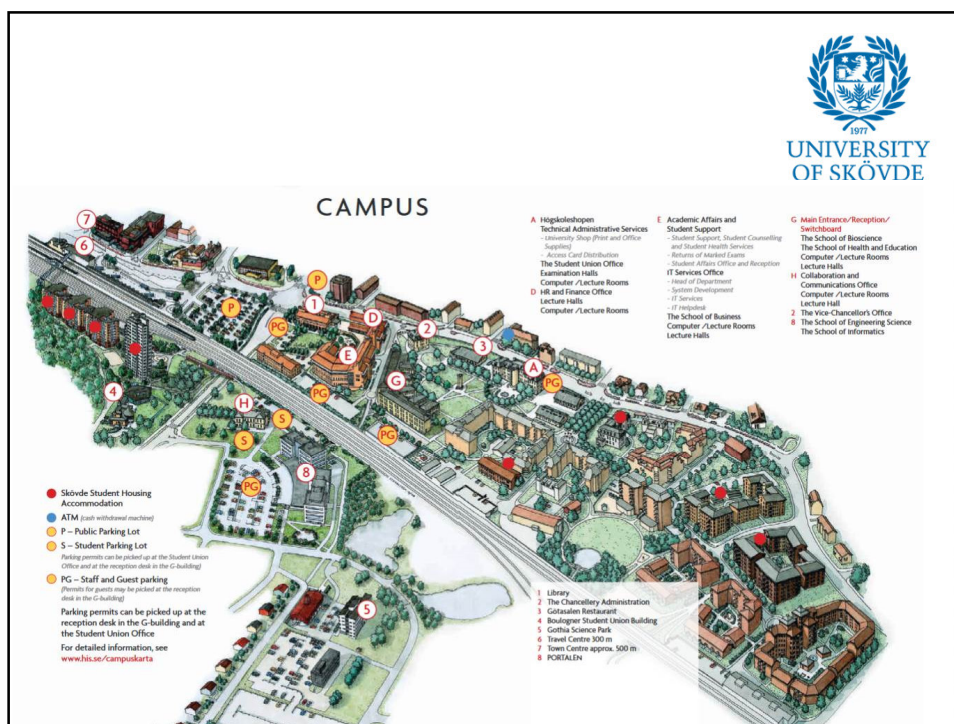


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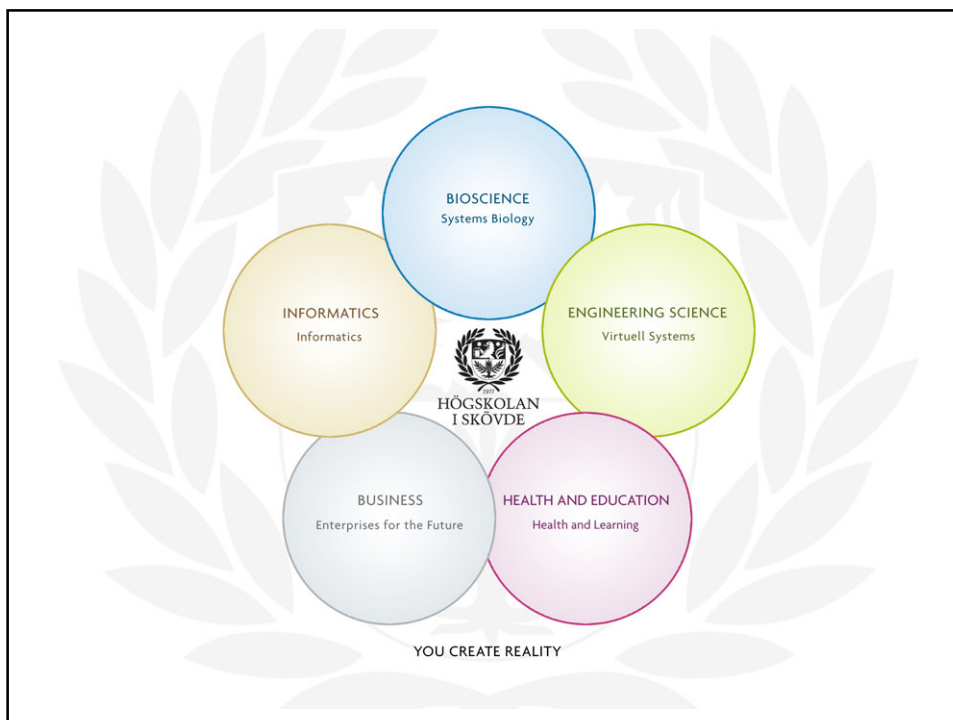


FACTS

- Students: around 7 400 (3 350 ft equivalents)
- Staff: around 540
- 60 study programmes –
 - Bachelor, Master, PhD
 - Innovative and cross disciplinary!
- 200 single subject courses
- About 100 courses given in English
- 120 exchange agreements with more than 40 countries
- 200 incoming international students
- 50 outgoing exchange students



Lars Niklasson
Vice-Chancellor



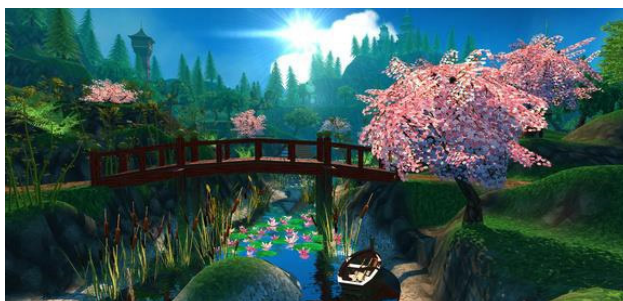
School of Informatics



Degree subjects:

- Informatics
- Media Arts, Aesthetics and Narration

Other subjects: Cognitive Science, Music



Our Game Incubator at Gothia Science Park is the world leading talent factory in the field of computer game development

School of Informatics

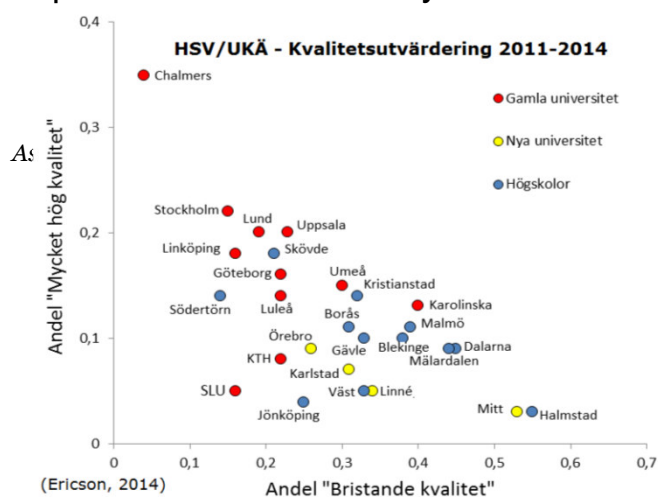


- Distributed Real-time Systems
- Information Systems
- Interaction Lab
- Skövde Artificial Intelligence Lab
- Media, Technology and Culture
- Software Systems Research Group

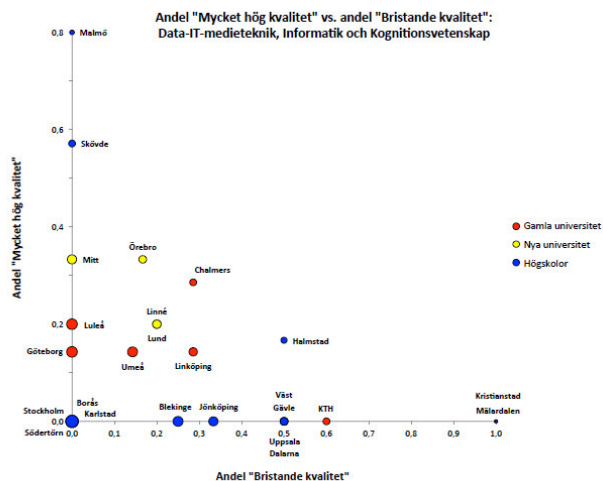


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Top 7 in Sweden - Quality of education



Top 2 in Sweden – Computer Science



Research Vision



- ***Demand driven research*** that contributes to the development of business and society
- ***Profiled research*** in which we are nationally leading and internationally ***competitive***
- The offered education programmes at basic, master and PhD levels are ***within our research profiles***

RESEARCH



- Around 135 professors, associate and assistant professors available for research.
- Presently around 75 students are engaged in Ph.D. studies
- Five research specialisations;
 - Informatics
 - Virtual Engineering
 - Systems Biology
 - Enterprises for the Future
 - Health and Education



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PhD in Information Technology




The PhD programme in Informatics covers a broad spectrum of information technology-related disciplines ranging from the study of media and organizational computing to the technical disciplines

IPSI - Industrial PhD School Informatics

The vision is to be able to award PhD degrees in all of the five research specialisations.

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INTERNATIONAL PROGRAMMES

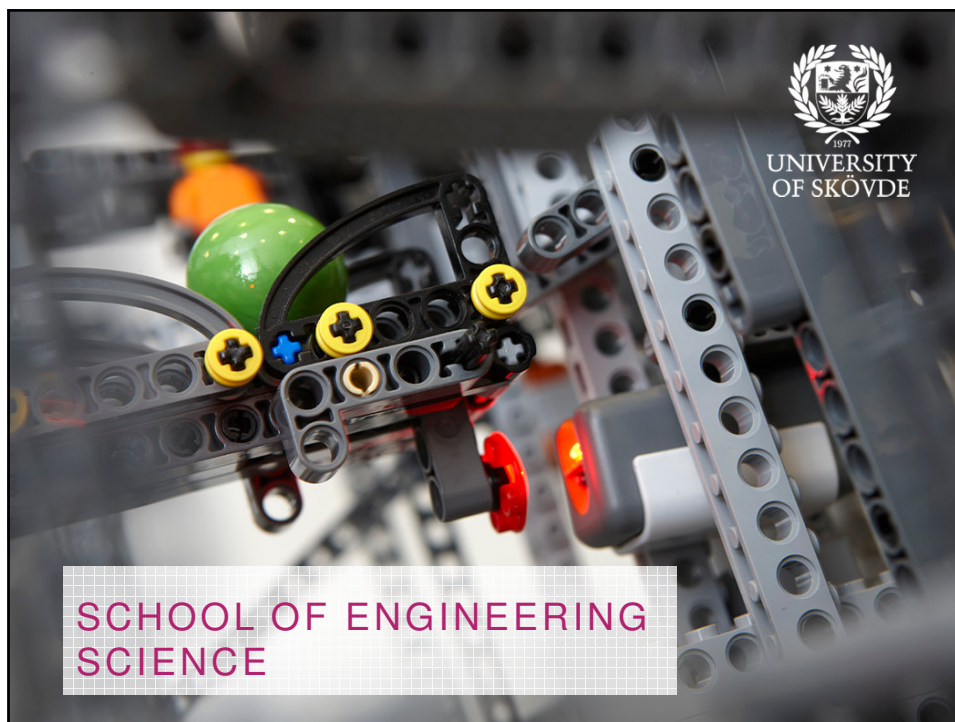
<p>Bachelor's Programmes</p> <p>Biomedicine 180 ECTS</p> <p>Bioscience - Molecular Biodesign 180 ECTS</p>	<p>Engineering and Technology</p> <p>Intelligent Automation 60 ECTS</p> <p>Intelligent Automation 120 ECTS</p> <p>Virtual Ergonomics and Design 60 ECTS</p> <p>Virtual Ergonomics and Design 120 ECTS</p>
<p>Bioscience</p> <p>Bioinformatics 60 ECTS</p> <p>Biomarkers in Molecular Medicine 120 ECTS</p> <p>Cognitive Neuroscience: Mind and Brain 60 ECTS</p> <p>Infection Biology 60 ECTS</p> <p>Infection Biology 120 ECTS</p> <p>Molecular Biotechnology 60 ECTS</p> <p>Molecular Biotechnology 120 ECTS</p>	<p>Informatics</p> <p>Data Science 60 ECTS</p> <p>Data Science 120 ECTS</p> <p>Digital Narration - Game and Cultural Heritage 60 ECTS</p> <p>Research Master in Informatics 120 ECTS</p> <p>Serious Games 60 ECTS</p>

Bild 28

- About 100 partner universities in 35 countries
- Scholarship programmes such as Erasmus+, Linnaeus-Palme, Erasmus-Mundus, MFS and Science without Borders

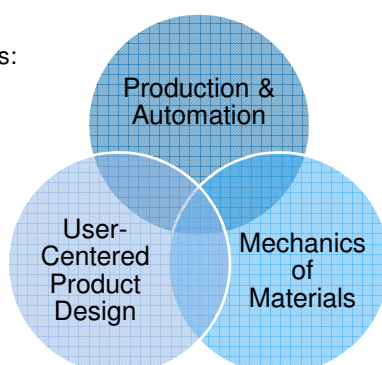





FOCUS

Virtual Engineering – industrial problem solving based on the usage and development of virtual solutions.

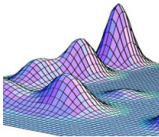
Three research groups:



PRODUCTION & AUTOMATION



Simulation-based optimization



IT-tools for the operators of the future



Maintenance optimization



Human-robot collaboration



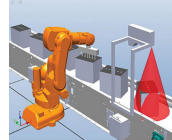
Decision-support system



Product life-cycle management



Virtual commissioning



Continuous improvements



INSTITUTIONEN FÖR INGENJÖRSVETENSKAP

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USER-CENTERED PRODUCT DESIGN

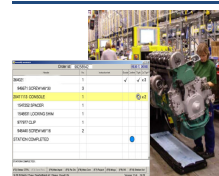


VIRTUAL ERGONOMICS DESIGN



Research about methods and tools for simulation of human-product interaction, to evaluate ergonomics and design ergonomic products and workplaces.

INDUSTRIAL INFORMATION DESIGN



Research about work related information and development of methods for design of successful information system solutions in industry.

HUMAN-ROBOT COLLABORATION



Research about human-robot collaboration, to create human friendly and productive workplaces.

SMART TEXTILES – INDUSTRIAL APPLICATIONS



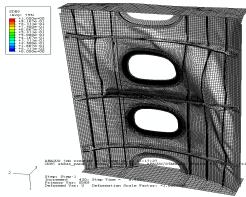
Research about how smart textiles can be applied in industry to improve health, quality and productivity.

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MECHANICS OF MATERIALS

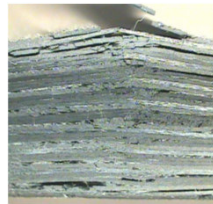


Adhesive joints



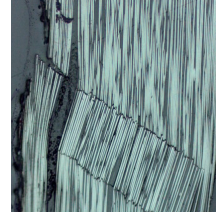
Fracture of adhesive joints of strengthening components in airplane fuselage.

Composite material



Delamination of carbon fiber composite material.

Kink-band



Kink-band formation during compressive loading of carbon fiber reinforced epoxy.

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ENGINEERING PROGRAMS



Undergraduate Engineering Programs

- Automation Engineering
- Production Engineering
- Mechanical Engineering
- Design Engineering
- Building Engineering
- General Engineering
- Production Technician
- Automation Technician

Graduate Engineering Programs

- Intelligent Automation 60 ECTS
- Intelligent Automation 120 ECTS
- Virtual Ergonomics and Design 60 ECTS
- Virtual Ergonomics and Design 120 ECTS



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INDUSTRIAL INNOVATION ARENA



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The Volvo AB Preferred Research Partner
within Virtual Manufacturing




- Interaction between business and research
- Business incubator



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Mechanical Engineers 2019 International students															
Vecka		2nd year - AS20/SS21				3th year - AS21/SS22									
Autumn semester	1	Fluid Dynamics		Statistics for Engineers II		Swedish for Foreign Students / English/Preparatory Course/Engineering Introduction for Exchange Students									
	2														
	3														
	4														
	5														
	6	Mechanics II		Linear Algebra: Vector Algebra		Machine Design Component		Mechanics IV							
	7														
	8														
	9														
	10														
	11	Strength of Materials: Introduction		Linear Algebra: Matrices and Eigenvector Problems		Applied FEM II		Material Processing Technology							
	12														
	13														
	14														
	15														
	16	Manufacturing Technology and Science of Materials		Mechanics III		Final project in Mechanical Engineering									
	17														
	18														
	19														
Spring Semester	1	Strength of Materials II		Swedish for Foreign Students/ English/Preparatory Course		Final project in Mechanical Engineering									
	2														
	3														
	4														
	5														
	6	Applied FEM I		Strength of Materials III											
	7														
	8														
	9														
	10														
	11	Engineering Project II: Machine		Sustainable Development for Engineers II											
	12														
	13														
	14														
	15														
	16	Engineering Project II: Machine		Sustainable Development for Engineers II											
	17														
	18														
	19														
20															
Varje cell motsvarar en vecka		Måndag		Tisdag		Onsdag		Torsdag		Fredag		Lördag		Söndag	



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Product Design Engineers 2019 International students












	Vecka	2nd year - AS20/SS21	3th year - AS21/SS22		
Autumn Semester	1	Product Development and Design II 	Swedish for Foreign Students / English/Preparatory Course/ Product Development and Design II 		
	2				
	3				
	4				
	5				
	6	Mechanics II: Static	Linear Algebra: Vector Algebra	Design Methodology II:  Economics II: Digital Human Modeling and Evaluation 	
	7				
	8				
	9				
	10				
	11	Strength of Materials I: Introduction	Linear Algebra: Matrices and Eigenvalue Problems	CAD III  User Centered Design 	
	12				
	13				
	14				
	15				
	16	Manufacturing Technology and Science of Materials	Industrial Design I	Final project in Industrial Product Development	
	17				
	18				
	19				
20					
Spring semester	1	Swedish for Foreign Students / English/Preparatory Course	Digital Visualization 	Final project in Industrial Product Development	
	2				
	3	Ergonomics I: Introduction 	Design Methodology I 		Final project in Industrial Product Development
	4				
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	20				
			Engineering Project II: Design 		

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Production Engineer 2019 International students

Autumn Semester

Vecka

2nd year - AS20/SS21

3th year - AS21/SS22

Linear Algebra-geometric transformation

Statistics for Engineers II

Swedish for Foreign Students/ English/Preparatory Course/Engineering Introduction for Exchange Students

Industrial robotics and och offline programming

Production and Logistics Simulation I

Production System Design

Efficient workplaces

Manufacturing Technology and Science of Materials

Industrial Control

Applied Operations Research

Production and Logistics Simulation II

Spring semester

Efficient workflows

Swedish for Foreign Students/ English/Preparatory Course

Maintenance and reliability engineering

Engineering Project II: Production

Sustainable Development for Engineers II

Final Year Project in Automation Engineering

Varje cell motsvarar en vecka

IP

Auto

Maskin

Matte

Fysik

Andra inst.

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NEW 1-YEAR MASTER'S PROGRAMS - 2019

		Virtual Ergonomics			Industrial Production Development			Intelligent Machines		
Year 1	Ht	Industrial Ergonomics (6hp)	Systems Thinking (6hp)	Industrial Systems Philosophy (6hp)	Leadership and organizational development (12hp)	Systems Thinking (6hp)	Industrial Systems Philosophy (6hp)	Industrial Ergonomics (6hp)	Systems Thinking (6hp)	Industrial Systems Philosophy (6hp)
		Advanced Computer Aided Design (6hp)	Product Lifecycle Management (6hp)		Product Lifecycle Management (6hp)			Control Theory (6hp)	Product Lifecycle Management (6hp)	
	Vt	Ergonomics Simulation (6hp)	Research Methodology and Communication (6hp)		Computational Intelligence (6hp)	Research Methodology and Communication (6hp)		Virtual Intelligent Machines (6hp)	Research Methodology and Communication (6hp)	
		Degree Project Magister (18 hp)			Degree Project Magister (18 hp)			Degree Project Magister (18 hp)		

11/19/2018

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NEW 2-YEAR MASTER'S PROGRAMS - 2019

Intelligent Automation				Industrial Ergonomics and Design			Industrial Management for Sustainability			
År 1	Ht	Industrial Ergonomics (6hp)	Systems Thinking (6hp)	Industrial Systems Philosophy (6hp)	Industrial Ergonomics (6hp)	Systems Thinking (6hp)	Industrial Systems Philosophy (6hp)	Leadership and Organizational development (12hp)	Systems Thinking (6hp)	Industrial Systems Philosophy (6hp)
		Control Theory (6hp)	Product Lifecycle Management (6hp)		Advanced Computer Aided Design (6hp)	Product Lifecycle Management (6hp)			Product Lifecycle Management (6hp)	
	Vt	Virtual Intelligent Machines (6hp)	Computational Intelligence (6hp)	Engineering Project (6hp)	Ergonomics Simulation (6hp)	Computational Intelligence (6hp)	Engineering Project (6hp)	Industrial IT (6hp)	Computational Intelligence (6hp)	Engineering Project (6hp)
		Virtual commissioning (6hp)	Modelling and Optimization (6hp)		Cognitive Ergonomics I (6hp)	Modelling and Optimization (6hp)		Technical Organisations Analysis (6hp)	Modelling and Optimization (6hp)	
År 2	Ht	Alternative Manufacturing Methods (6hp)	Technical Management (6hp)	Sustainability and Innovation (6hp)	Cognitive Ergonomics II (6hp)	Technical Management (6hp)	Sustainability and Innovation (6hp)	Effective Support Network (6hp)	Technical Management (6hp)	Sustainability and Innovation (6hp)
		Intelligent Automation (6hp)	Research Methodology and Communication (6hp)		Inclusive Design (6hp)	Research Methodology and Communication (6hp)		LEAN for Sustainability Development (6hp)	Research Methodology and Communication (6hp)	
	Vt	Degree Project 30 hp			Degree Project 30 hp			Degree Project 30 hp		

Student Support



- Student Accommodation Service
- Pick-up service
- Introduction programme
- Student Union
- International Committee
- A buddy system



Student Support



- Student Affairs Office
- Student and Career Counselling
- Student Health (Social counselling)
- Support for students with disabilities
- IT-Helpdesk
- Library
- Study Support Centre



International Office



Staff

Sanna Larsson, Andrea Dião Jonsson, and Frida Lindgren



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CONTACT



- International Office:
international@his.se
- Student counsellors:
studycounselling@his.se
- Admission:
admission@his.se
- Accommodation:
bostadsformedling@his.se



BENEFITS OF THE ERASMUS PROGRAM



Professional and personal enrichment
Meet people and learn new cultures
Improve languages

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AN OPORTUNITY



Possibility of enriching your engineering studies and even more:

- Possibility of getting a double engineering title if the requisites are accomplished.
- Possibility of studying a 1 year master degree after getting the bachelor degree.
- Personalized attention to the student.
- Direct relation with industry.
- Meet one of the most innovative countries in the world.
- Improve languages.

Take your chance!





TACK SÅ MCKYKET!

Välkommen till Skövde!

www.his.se

www.studyinsweden.se

www.facebook.com/hogskolaniskovde

Enrique Ruiz Zúñiga – School of Engineering Science - Responsible for internationalization

Karlsruhe Institute of Technology – 14th November 2018