GLOBAL SYSTEMS DESIGN

2-YEAR MASTER’S PROGRAMME
EN.SES.AAU.DK

INTERNATIONAL PROGRAMME

AAALBORG UNIVERSITY
COPENHAGEN
GLOBAL SYSTEMS DESIGN

Competition is intensifying on global markets. In order to survive, private companies as well as public organisations must innovate manufacturing and business processes as well as products and services to be able to provide customers and stakeholders with solutions of high quality in a cost-efficient and sustainable manner.

At the same time, they must ensure a profitable and competitive business.

The Master’s programme in Global Systems Design is based on the premise that fields such as planning of work processes, manufacturing systems, business processes and related product and services. Such modern tools play an important role in business improvement and enhanced resource utilisation in today’s competitive environment.

The programme challenges the sector-specific knowledge you have gained during your Bachelor education. During the Master’s programme in Global Systems Design, you will develop and expand your knowledge within product design, efficiency improvement, and innovation of work processes and systems. Thus, the programme enables you to analyse, plan and evaluate international business- and production related challenges from a modern day business and organisational perspective. Also, the programme gives you formal qualifications matching the competencies known in the industry as “Green Belt” and “Black Belt” within Lean, Six Sigma and Process Improvement.

The programme is characterised by a combination of engineering and business approaches; you will be working with application of innovative information technology for modelling, simulation and cost-benefit studies of manufacturing systems, business processes and related product and services. Such modern tools play an important role in business improvement and enhanced resource utilisation in today’s competitive environment.

The programme takes in students with various nationalities and bachelor degrees and offers a combined industrial engineering and business curriculum together with training in practical problem solving over the two years of study. It enables you to contribute to process, product and service innovation as well as value creation for clients and stakeholders in companies, institutions and organisations. Thus, as a fully fledged candidate from the Master’s programme in Global Systems Design, you will be able to handle and engage with both production, market and customer data and all teaching is therefore conducted in English.

On the basis of this data, you will be able to simplify, automate and optimise business processes across industrial fields. The programme takes in students with various nationalities and bachelor degrees and offers a combined industrial engineering and business curriculum together with training in practical problem solving over the two years of study. It enables you to contribute to process, product and service innovation as well as value creation for clients and stakeholders in companies, institutions and organisations. Thus, as a fully fledged candidate from the Master’s programme in Global Systems Design, you will be able to handle and engage with both production, market and customer data and all teaching is therefore conducted in English.

On the third semester, you have the opportunity to define your own semester. You may acquire industrial experience via a traineeship in an international company, study at a foreign university or specialise within a specific area through your project work.

GLOBAL SYSTEMS DESIGN

ENGINEEERING AND BUSINESS APPROACH

The Master’s programme in Global Systems Design is based on the premise that fields such as planning of work processes, customer focus, quality assurance, production management and utilisation of resources all can be addressed from a modern production approach regardless of sectors; the approach is applicable to work within a wide range of fields e.g. production, transportation and service - on both a national and an international level.

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As a graduate from the Master’s programme in Global Systems Design you will be:

- able to develop attractive workplaces and competitive organisations
- qualified to analyse, model, optimise, design and implement production and business processes as well as innovative related products and services
- skilled to model, simulate, cost-benefit and evaluate solutions, and work with both production, market and customer data
- able to manage a project and meet deliverables towards a company
- able to communicate with and manage business stakeholders, which is critical for task accomplishment
- able to handle and e.g. deal with the following complex improvement tasks:
  - Optimisation of production flow in the metal-working industry
  - Efficiency improvement of packing systems by means of robots and information technology
  - Reduction of lead time and waiting time for operations in hospitals
  - Optimisation of delivery of a container shipping line
  - Improvement of customer response and reduction of complaints in an insurance company’s call center
  - Reduction of products’ time to market in the pharmaceutical industry
  - Reduction of lead time of case handling times within a ministry

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As a student at Aalborg University, you will work closely together with your fellow students by way of problem-based project work. The Aalborg Model for Problem-Based Learning (PBL) receives great interest both nationally and internationally, and UNESCO has placed its only Professorial Chair in PBL at Aalborg University.

Typically, you will be part of a group consisting of 6-8 students. Once you have formed a project group, you need to define a problem together that you want to examine. The project work forms the basis of your project, and you are to a great extent responsible for designing product- and service processes. The project work ensures a great variety of approaches and perspectives for defining it yourselves within an often very broad theme frame. Together, you can achieve a sound and thoroughly prepared project. Together, you need to do individual exams in your subjects. Together, you may also discuss these with your friends in the group. The project work is completed with an exam. While working on your project, you will also need to do individual exams in your subjects. Together, you need to do individual exams in your subjects. Together, you need to do individual exams in your subjects.

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Aalborg University Copenhagen (AU-Cph) is located near the centre of Copenhagen, just 15 minutes from the Central Station. At AU-Cph, you will be part of a dynamic, international and inspiring research and study environment of approximately 2,300 students, 400 researchers and several innovative companies.

NEW AND MODERN FACILITIES

The new campus is designed to facilitate and optimise project-based learning, networking and interaction. All students at AAU-Cph have access to well-designed study spaces, newly furnished lecture halls and, for the experimental programmes, well-equipped laboratories.

INNOVATION AND ENTREPRENEURSHIP

Innovation and entrepreneurship are integrated into all programmes at AAU-Cph with the purpose of stimulating and developing your innovative ideas. The new campus is home to several start-ups, and AAU Innovation is represented at AAU-Cph to support students with entrepreneurial aspirations.

STUDY IN COPENHAGEN

The housing market in Copenhagen is challenging, so start your search early. AAU-Cph has a limited number of rooms in residence halls for international students.

ACCOMMODATION IN COPENHAGEN

Luiza Bucur, student at the Global Systems Design programme

“I am 23 years old and I have accomplished an IT and Electronics degree. I developed a special interest in robotics, namely industrial robots and automation while doing my Bachelor thesis in collaboration with Aalborg University. I soon realised that I wanted to continue to work on this exciting field.

What drew me most to the Master’s programme in Global Systems Design was the opportunity to enhance my engineering background with a business insight. The education programme has not only provided me with an understanding of the main principles in production and manufacturing, but what I particularly value is the strong emphasis on collaboration with the industry through problem-based project work.”

APPLICATION AND REQUIREMENTS

In order to apply, you are required to have a Bachelor’s degree in:
- Bachelor of Science (BSc) in Engineering (Mechanical Engineering and Manufacturing)
- Bachelor of Science (BSc) in Engineering (Global Business Engineering)
- Bachelor of Engineering in Production Engineering
- Bachelor of Science (BSc) in Mathematics
- Bachelor of Engineering in Electronics and Electrical Engineering
- Bachelor of Science (BSc) in Engineering (Electrical Engineering and IT)
- Bachelor of Engineering in Computer Engineering and IT
- Bachelor of Technology Management and Marine Engineering.

Students with Bachelor degrees in similar areas are also accepted. Students with another Bachelor’s degree may upon application to the Board of Studies be admitted following a specific academic assessment if the applicant is considered as having comparable educational prerequisites.

Furthermore, you have to meet the official language requirements for international students applying to Aalborg University. You must complete and pass one of the following:
- IELTS (academic test): 6.5
- TOEFL (paper-based): 550
- TOEFL (computer-based): 230
- TOEFL (internet-based): 80
- Cambridge ESOL: C1

TUITION-FREE STUDIES

Students from EU/EEA countries are not required to pay a tuition fee. However, all students must pay all other costs related to studying in Denmark: for example costs related to books, living expenses and accommodation. With the exception of students from partner universities outside the EU/EEA, a student from a non-EU/EEA country will need to pay a tuition fee.

For more information, please see: www.apply.aau.dk/how-to-apply-postgraduate

DEADLINES

Deadline for applicants requiring visa: 15 March, when applying for the September intake

Deadline for applicants with EU/EEA citizenship and applicants from partner/co-operating institutions: 1 May, when applying for the September intake

For more information, please see: www.apply.aau.dk/how-to-apply-postgraduate
CONTACT

If you have questions about how to apply or general questions about studying in Denmark and life at Aalborg University, please contact

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Phone: (+45) 9940 9940  I  Fax: (+45) 9815 4522
E-mail: incoming-student@adm.aau.dk
Web: studyguide.aau.dk

If you have questions about the programme, please contact

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