



# KTH Royal Institute of Technology



Information about master studies at KTH:





# KTH Royal Institute of Technology



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**KTH web site**



**Facts about KTH**



**Study at KTH**





# KTH Royal Institute of Technology

One of the top technical universities in Europe





# Short facts about KTH

- Established 1827 in Stockholm, Sweden
  - People from more than one hundred nations
  - Some numbers:
    - 13,000 full time students
    - 1,800 PhD students
    - 2,500 new students in master programs
    - 300 new PhD students each year
    - 600 members of faculty
-





# Short facts about KTH

- QS rankings 2019: Global World ranking 104 but many engineering areas are much stronger:
    - Electrical Engineering: 19
    - Architecture / Built Environment: 23
    - Mechanical Engineering: 26
    - Materials Science: 26
    - Statistics & Operational Research: 39
    - Computer Science & Info Systems: 41
    - Civil & Structural Engineering: 43
    - Chemical Engineering: 51-100
    - Physics & Astronomy: 51-100
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# The Kingdom of Sweden

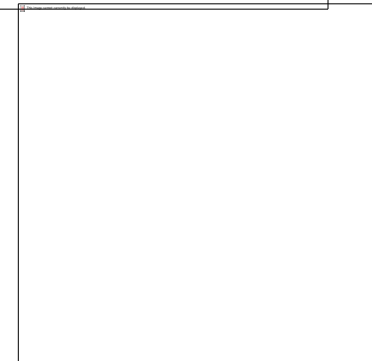
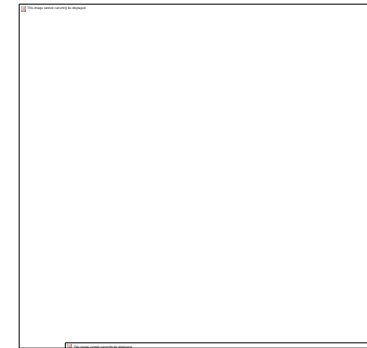
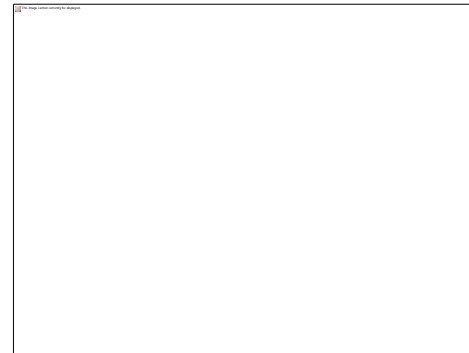
- About 10 million inhabitants, ~2 million of whom live in the capital of Stockholm
- Has a pleasant climate thanks to the warm Gulf stream in the north Atlantic sea
- Combines a beautiful natural setting with modern technology and vibrant cities
- Home of the Nobel Prize, and many famous export companies

Do you know which?



# Sweden makes a lasting impression

Swedish entrepreneurship and ingenuity has helped shape the worlds of communication, furniture, fashion, music and much more. And no matter what the industry, there always seems to be that engineering approach.

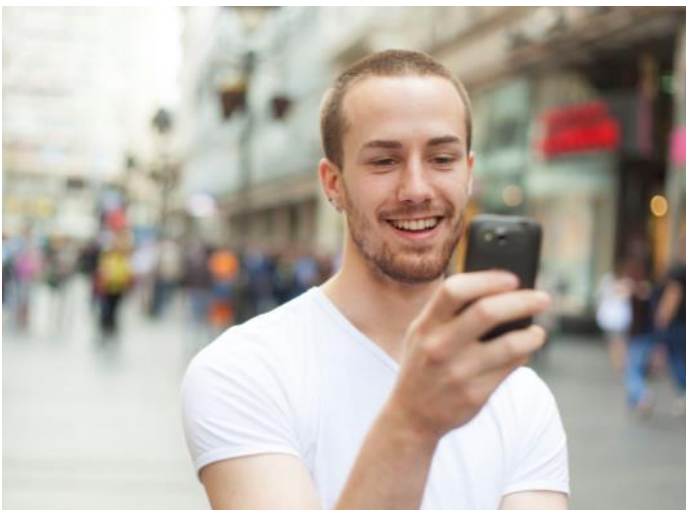


# Stockholm – a city of islands





# Stockholm: a dynamic environment, modern, historic, clean air and water



# Stockholm: an international city

- The safest city in Europe according to The Economist in 2015, nr 4 in the world
  - A multi-cultural European capital, communities from China, India and other countries
  - Quick access to city, campus and nature with excellent transportation: public, by bicycle or even by boat
  - **Swedes speak good English**, very limited need to learn Swedish while studying in Stockholm
-



























# Stockholm student life, part of the city





# Examples of social activities arranged by the student union:

Picnic in the summer

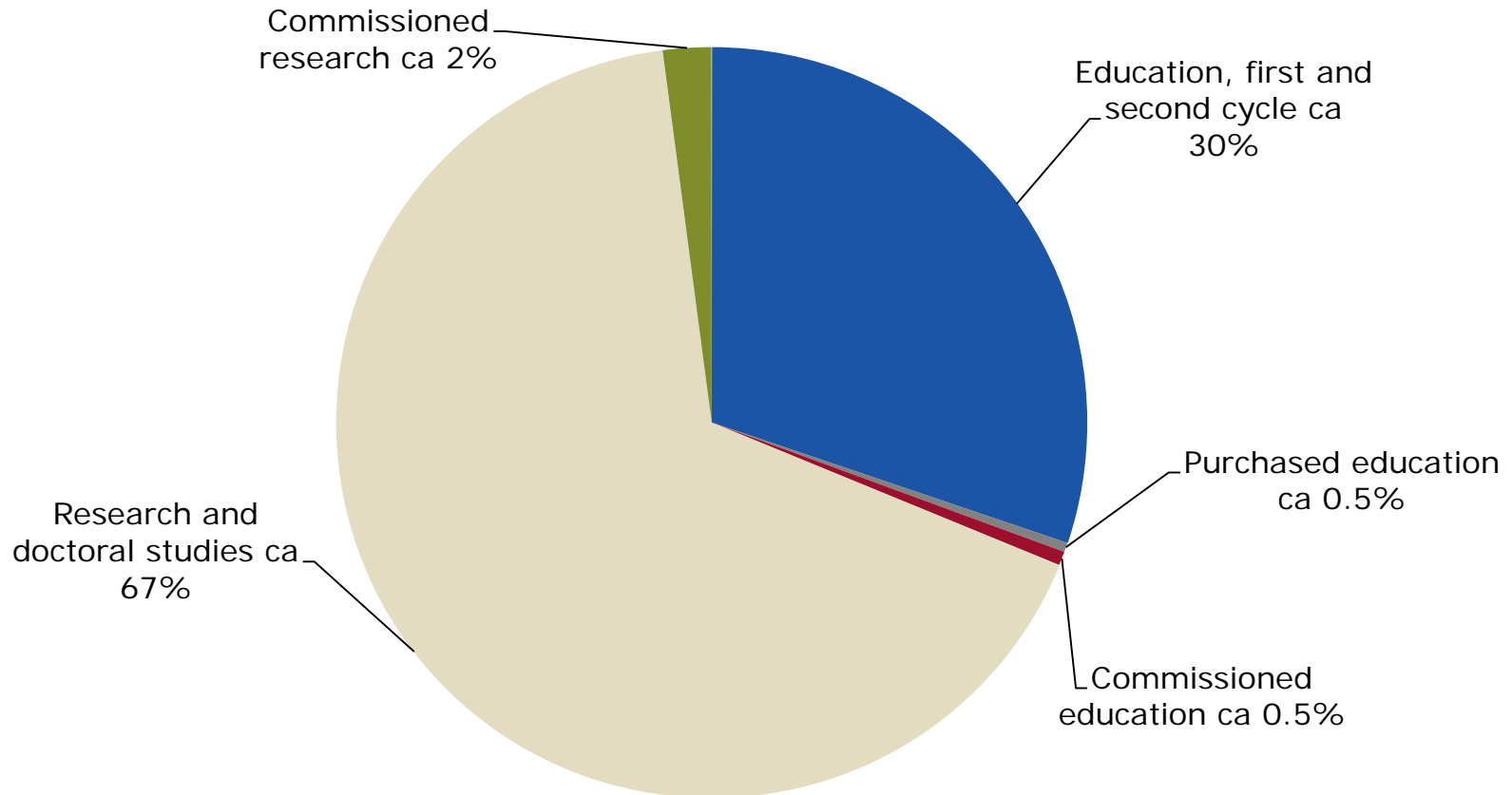


Ice skating in the winter



# KTH - Research-based operations

- *Total Revenue SEK 4,9 billion (ca USD 0,6 billion) \**



- Figure for 2016, exchange rate 1USD = 8.3 SEK



# Five campuses close to industry



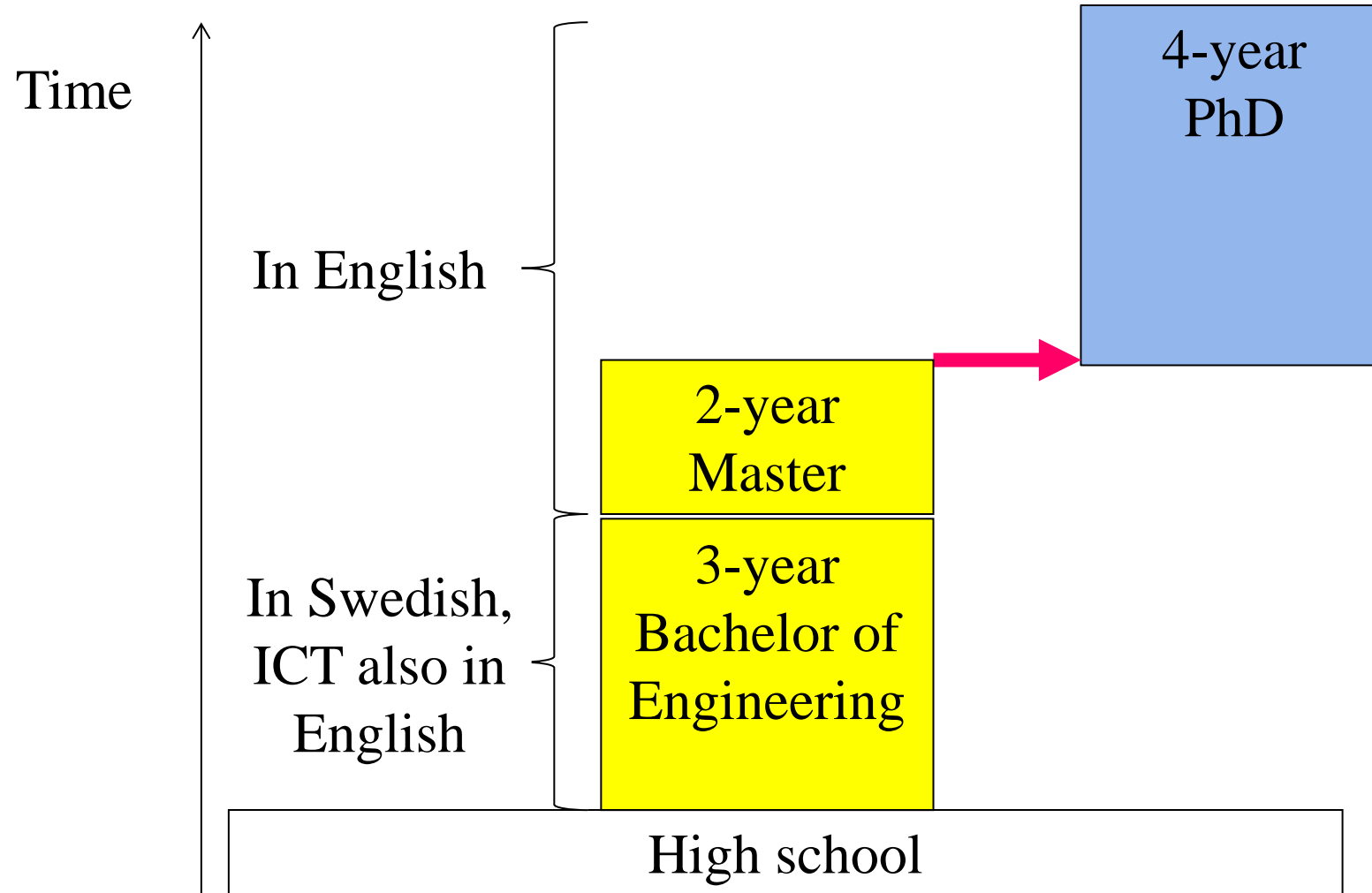




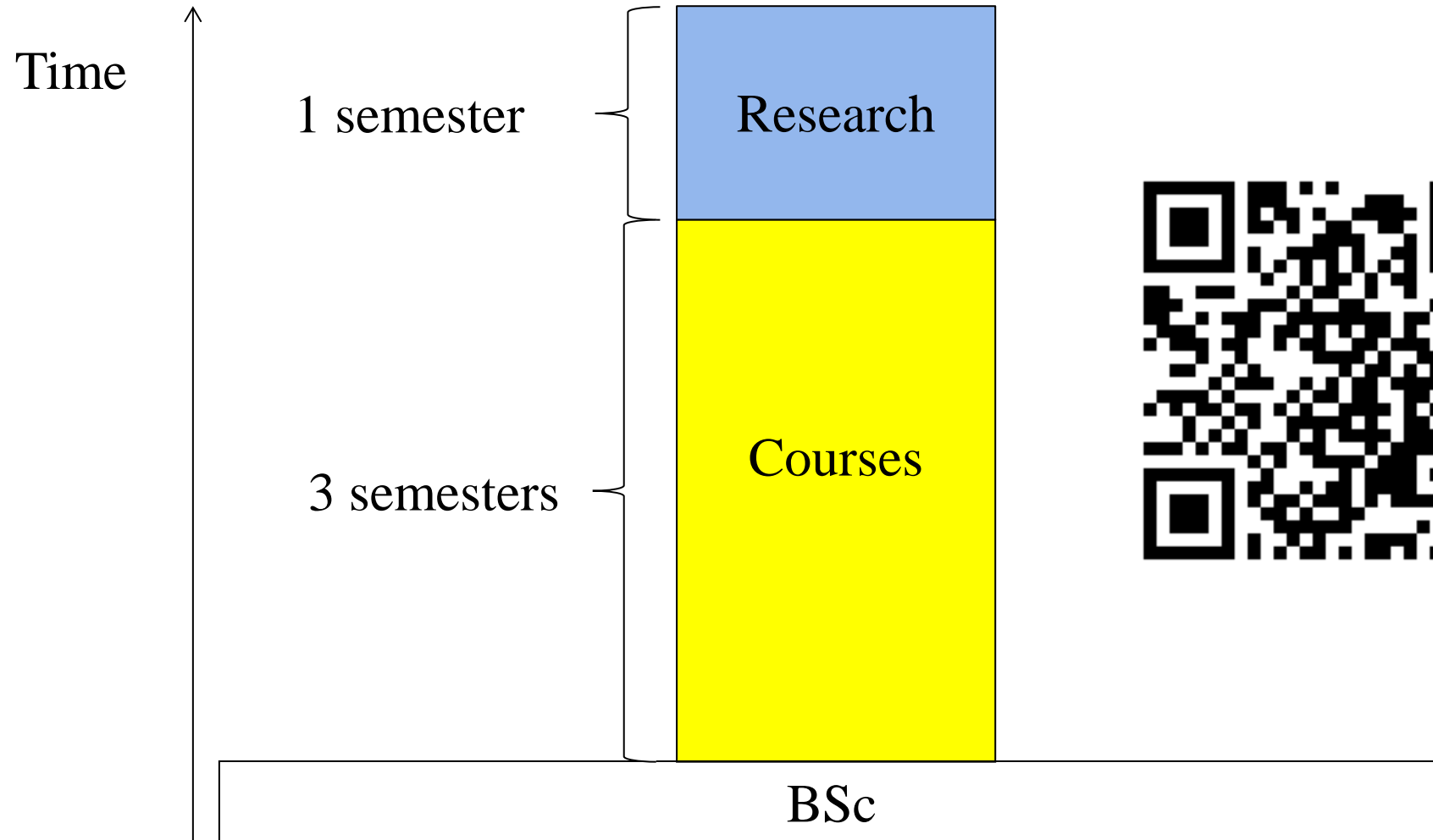
# Education in close collaboration with industry

- KTH has five campuses in and around Stockholm city
  - Each campus closely integrated with local industry
  - Campus in Kista is surrounded by the world's largest collection of ICT businesses, more than 1000 companies, such as Ericsson, IBM, Intel, Sun, Compaq, Huawei, ZTE, and many more
  - Final thesis can be written at a company, often leading to the first job after graduation
-

# Structure of education at KTH



# Structure of MSc education at KTH







# MSc programmes 2018/2019

## **9 subject areas, 60 programmes:**

- Architecture and Civil Engineering, 9 programmes
- Electrical Engineering, 10 programmes
- Engineering Physics and Mathematics, 6 programmes
- Energy and Sustainable Development, 10 programmes
- Industrial Management and Innovation, 3 programmes
- Information and Communication Technology, 9 programmes
- Life Science Technology, Chemistry and Chemical Engineering, 7 programmes
- Materials Science and Engineering, 3 programmes
- Mechanical Engineering, 10 programmes



# Fees and Scholarships

There are application and tuition fees for non-EU/EEA/Swiss citizens for 1st and 2nd cycle studies (bachelor and master)

The tuition fee is SEK155k (about USD19k\*) for one year of full-time master study, architecture 70% higher and bachelor 20% lower

Scholarships are available, for example:

- KTH Scholarship (covering the tuition fee)
- SI: the Swedish Institute
- Joint programs: Erasmus Mundus and EIT (European Institute of Innovation and Technology)

\* Assuming exchange rate USD 1.0 = SEK 8.3

# Living in Sweden

When applying for a residence permit, you must prove to the Swedish Migration Board that you will have a guaranteed sum of money at your disposal throughout the entire period of your studies. The amount is SEK 8190, about USD 990\* , per month for ten months of the year.

Minimum budget per month:

- Food: USD 250
- Accommodation: USD 470
- Local travel: USD 70
- Phone/internet: USD 40
- Other: USD 160

\* Assuming exchange rate USD 1.0 = SEK 8.3





# Application requirements and process

- Completed Bachelor's degree is required
  - English proficiency has to be shown (TOEFL 90, IELTS 6.5 etc), but there is flexibility regarding **the scores** for interviewed students from partner universities
  - There are programme-specific requirements (see [www.kth.se/en/studies/master](http://www.kth.se/en/studies/master))
  - Apply at [www.universityadmissions.se](http://www.universityadmissions.se)
  - Online application period: October 15 to January 15
  - **Applications for admission and scholarship are only processed if the application fee is paid**
  - Results of admission distributed early April, 2020
-



# KTH partner program ("4+2")

Partner university students can apply during the last year of their bachelor studies

Language requirements may be slightly lowered after an interview in November 2019

The applications can be directed to all KTH master programs (but not joint programs), the normal prerequisites are required for each program

Applications are made at [universityadmissions.se](http://universityadmissions.se), deadline in mid January, 2020, admissions announced in the beginning of April



# English proficiency requirements

- Two common ways of showing English proficiency are:
    - TOEFL score at least 90 with writing at least 20
    - IELTS score at least 6.5 with no sub-score below 5.5
  - When an interview is performed, the acceptable scores may be lower than above, but please note that a score from a test (TOEFL, IELTS etc) is still required
  - Other accepted language tests:
    - IELTS Academic: A minimum overall mark of 6.5, with no section lower than 5.5
    - Cambridge ESOL: Cambridge English: Advanced (CAE) Certificate in Advanced English or Cambridge English: Proficiency (CPE) (Certificate of Proficiency in English)
    - Michigan English Language Assessment Battery (MELAB): Minimum score of 90
    - University of Michigan, ECPE (Examination for the certificate of Proficiency in English)
    - Pearson PTE Academic: Score of 62 (writing 61)
  - TOEIC is not accepted
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# KTH exchange program

Partner university students can apply for exchange studies at KTH. Deadlines: April 15 and October 15, see: **KTH** ([www.kth.se/en/](http://www.kth.se/en/)) / **Study at KTH** / **Exchange studies**

Students can study for up to 1 year and do not have to pay tuition fees for exchange studies which do not result in a degree

During or after exchange studies, it is possible to apply, in competition, for admission to a KTH master program which results in a degree

Contact your study administration for details



# Application for KTH scholarship

- Applications for KTH scholarships are open early December, 2019, to January 15, 2020.
- Applications are entered via the web page for each individual master program:
  - Go to a master program: [www.kth.se/en/studies/master/](http://www.kth.se/en/studies/master/)
  - Select "Fees and funding" in the left menu and then "KTH scholarship"
- Fill out the form: Example for Electric Power Eng:



# Residence permit for studies

- When you have decided to accept the offer of admission at KTH it is time to apply for a residence permit
- Visit the web site of the Swedish Migration Board:  
[www.migrationsverket.se/English/Private-individuals/Studying-in-Sweden/](http://www.migrationsverket.se/English/Private-individuals/Studying-in-Sweden/)
- The application is found here:





# Accommodation

- If you are paying tuition fee (deadline May 31, 2020), a scholarship holder, part of Erasmus Mundus or EIT, **KTH will provide accommodation** for the first academic year (11 months). You will receive information regarding the accommodation application process which is in May
- For the second academic year, it is recommended to join the SSSB public housing queue for students. This can be done shortly before arriving at KTH
- SSSB web site:



# Admission and arrival

- **Two Arrival Days, in the beginning of August and three weeks later\* :**
  - Bus provided from the airport Arlanda to KTH campus
  - Student service, pick up service and arrival information at campus
  - Sign your housing contract and pick up your keys (if you have accommodation through KTH)
- **Pre-sessional course** about English and studies at KTH starts after the arrival day in early August\*. The course is free of charge
- **The semester begins on August 31, 2020**

\*) Preliminary, based on the 2018 schedule

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# Languages: English or Swedish?

- **Good knowledge of English is fundamental** for successful education at KTH
  - Sweden has a local language but there is **very limited need to learn Swedish** when studying since people in Sweden speak good English
  - All KTH students who do not have Swedish as their first language are invited to an introductory course in Swedish language and culture. The course is free of charge for all students
  - **Good advice: focus on English in the beginning and take part in the pre-sessional course!**
-



## After graduation

- After a KTH MSc degree:
    - 6 months residence permit to look for a job or a PhD student position
    - KTH PhD student positions are publically announced at the web site, KTH MSc students may have an advantage
  - After a KTH PhD degree: offer of permanent residence permit in Sweden
  - KTH graduates find positions all over the world
-



# Career prospects after a KTH degree

- 2016 statistics for master programs:
    - 40% had a job even before graduation
    - > 90% had a job within one year of graduation
    - > 30% became PhD students
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# PhD studies



- Three years of full-time research, one year of courses
- Engages around 2,000 people
- A large proportion international PhD students
- A candidate has to apply for a position
- All PhD student positions are announced on the KTH web site:  
<https://www.kth.se/en/studies/phd>
- Employment with a salary if admitted, but competition for positions



# Things you can do after finishing education at KTH...



ChihCheng (Ted) Yang  
Traffic planner, SJ AB, 2016-now  
Subway driver, TRTC, 2013-2015

- MSc in Transport and Geoinformation Technology, 2018  
KTH, Stockholm
- B.B.A in Transportation Technology and Management, 2013  
National Chiao Tung University,  
Hsinchu

# Things you can do after finishing education at KTH...



Justin Chiu, Dr.  
Consultant, EPS ab.  
Manager, KIC Innoenergy.  
Assistant Professor, KTH.

- Postdoctoral researcher at Graduate Institute of Environmental Engineering.  
National Taiwan University, Taiwan, 2014.
- PhD in Energy Storage.  
KTH, Sweden, 2013.
- MSc in Engineering/ Dipl. Ing.  
National Institute of Applied Sciences, France, 2007.

# KTH faculty member from Taiwan



Yves Hsieh, PhD  
Assistant Professor, KTH  
Division of Glycoscience, School of Biotechnology  
Wallenberg Wood Science Center, School of Chemical  
Science and Engineering

- ARC Postdoctoral Research Fellow  
University of Adelaide, Australia, 2014-2015
  - PhD, School of Chemistry, University of Sydney,  
Australia, 2009-2013
  - Research Assistant, Genomic Research Center,  
Academia Sinica, Taiwan, 2006-2009
-



# Things you can do after finishing education at KTH... **go into space!**



## **Professor Christer Fuglesang** Professor in Space Physics, KTH

- Mission crew STS-116 & STS-128 Shuttle Discovery, NASA-ESA 2006 & 2009
- Astronaut at European Space Agency 1992-present
- PhD in Experimental Particle Physics Stockholm University, 1986
- Master in Engineering Physics KTH, 1981

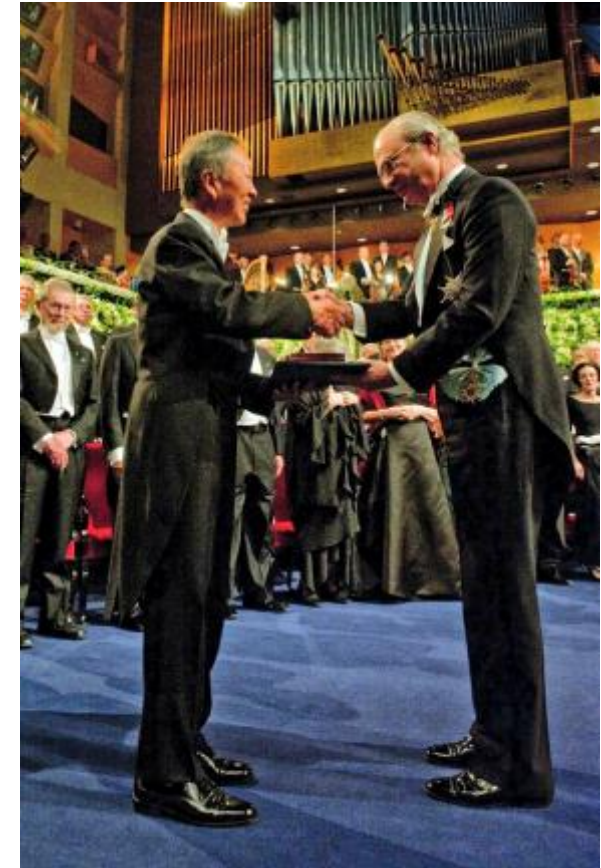
# Things you can do after research at KTH... **collect the Nobel prize!**

## Professor Hannes Alfvén

- Nobel Prize in Physics, 1970 for Magnetohydrodynamics
- Professor in Electrical Engineering University of California, 1967-1991
- Professor in Electromagnetic Theory and Electrical Measurements KTH, 1940-1991
- PhD in Electromagnetic Waves Uppsala University, 1934



# Nobel Prize ceremony in Stockholm on December 10 every year



... may take a few years after graduation...



# The Nobel Banquett



International students from KTH attended the Nobel Banquett in, the Stockholm City Hall, dressed in traditional costumes.





Welcome to KTH: launch your career!





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