

EE STUDY ABROAD PROGRAMS 2019-20





Have you ever thought of studying abroad for (at least) one semester?

Option a)



Option b), c), d), e), ...



A better question is:

- **Are you ready to make a difference in your career?**
 - Taking the exact same courses as you would take here, in English and with no “detour” from your flowsheet
 - Learning or improving your knowledge of a foreign language and culture
 - Meeting people from all over the world

If you answered yes...

- Congratulations! UB EE is ready to help you fulfill your aspirations and take you to the next level!

Three EE-Sponsored Programs



ENSEA, France



Chalmers, Sweden



Sapienza, Italy

Who is eligible?

- The program at ENSEA (FAME) in France is designed for **junior students** in their second semester
 - **Apply NOW at the beginning of your junior fall semester**
- The other two programs (Sweden and Italy) are designed for **senior students** in their Fall and/or Spring semesters
 - Apply at the beginning of your junior spring semester

Course Flowsheet

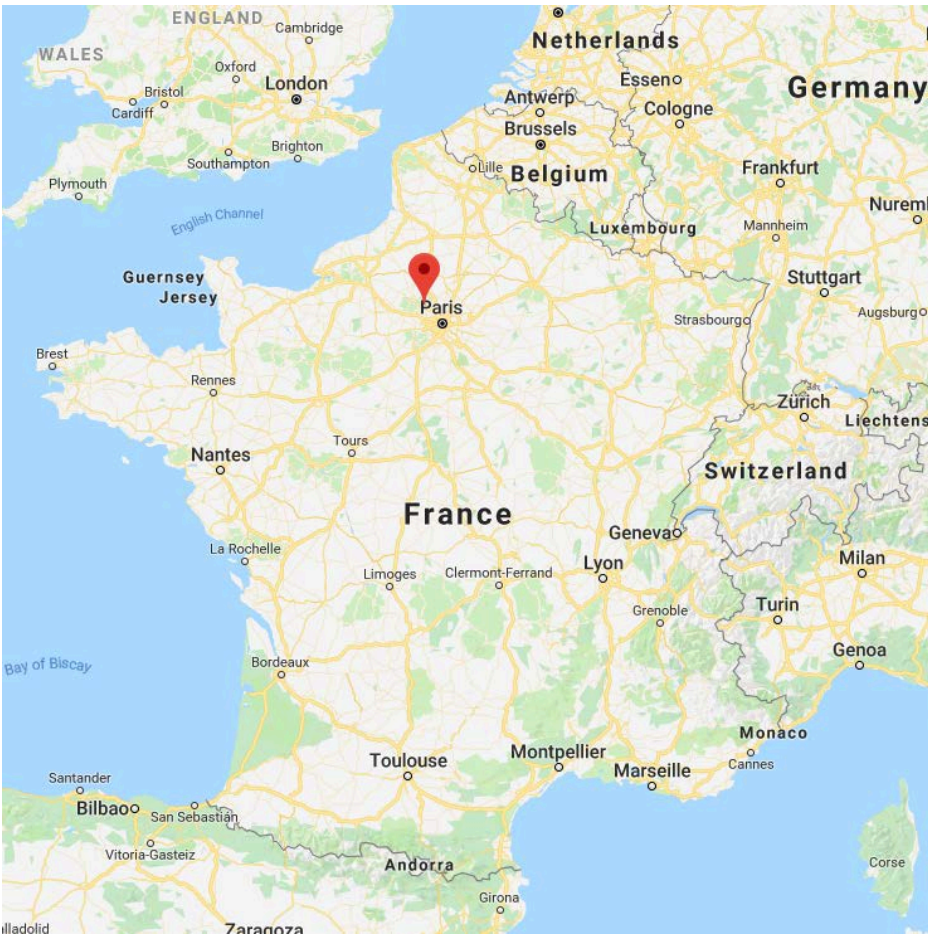
Freshman		Sophomore		Junior		Senior	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
MTH 141 Calculus I	MTH 142 Calculus II	MTH 306 Intro to Differential Equations	MTH 241 College Calculus III	EE 310 Electronic Devices & Circuits I	EE 311 Electronic Devices & Circuits II	EE 408 Senior Seminar	EE 494 Senior Design Implementation
CHE 107 Chemistry I	PHY 107 Physics I	PHY 108 General Physics II	PHY 207 General Physics III	EE 352 Intro to Electronics Lab	EE 353 Electronic Circuits Lab	EE 478 HDL Digital Design	EE Elective
EAS 199 First-year Seminar	EE 178 Digital Principles	PHY 158 General Physics II Lab	PHY 257 General Physics III Lab	EE 324 Applied EM	EE 383 Communication Systems	EE Elective	Technical Elective
ENG 105 Communication Literacy 1	EAS 202 Engineering Impact on Society	EE 202 Circuit Analysis I	EE 205 Signals & Systems	EE 305 Probability & Statistics	EE 379 Embedded Systems	Technical Elective	Technical Elective
Thematic or Global Pathway Course	Thematic or Global Pathway Course	EAS 360 STEM Comms.	EAS 240 Programming for Engineers	MTH 309 / EAS 230 Linear Algebra / Comp.	EE 336 Fundamentals of Energy Systems	Thematic or Global Pathway Course	UBC 399 UB Capstone
						Thematic or Global Pathway Course	
18 hours	16 hours	15 hours	16 hours	17 hours	15 hours	16 hours	13 hours

ENSEA, FAME Program

Cergy, France



Ecole Nationale
Supérieure
de l'Electronique
et de ses Applications



FAME Program

- **French American Exchange Program**

- **Directors:**

- Professor Philippe Marc
 - Professor Vanita Misquita

- **Partner Institutions:**

- IIT (Illinois Institute of Technology)
 - UB (University at Buffalo), The State University of New York
 - Georgia Tech Europe, Lorraine
 - University of Pittsburgh
 - Colorado School of Mines
 - University of Colorado at Boulder
 - University of Illinois at Urbana-Champaign (UIUC)
 - University of Michigan at Ann Arbor



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ENSEA, FAME Program Cergy, France

- **Top University located in Cergy, France**
 - 35 minutes from the center of Paris!
- **Study Abroad Model**
 - UB Junior students in their Spring semester take the exact same courses as they would take at UB, in English and in smaller focused groups (bring your GPA up!)
 - Students are directly registered in the FAME program at ENSEA
 - Discounted rates for groups of UB students!
 - Students pay at UB to transfer their credits upon return
 - Seamless transfer of credits!

Direct Mapping of Courses

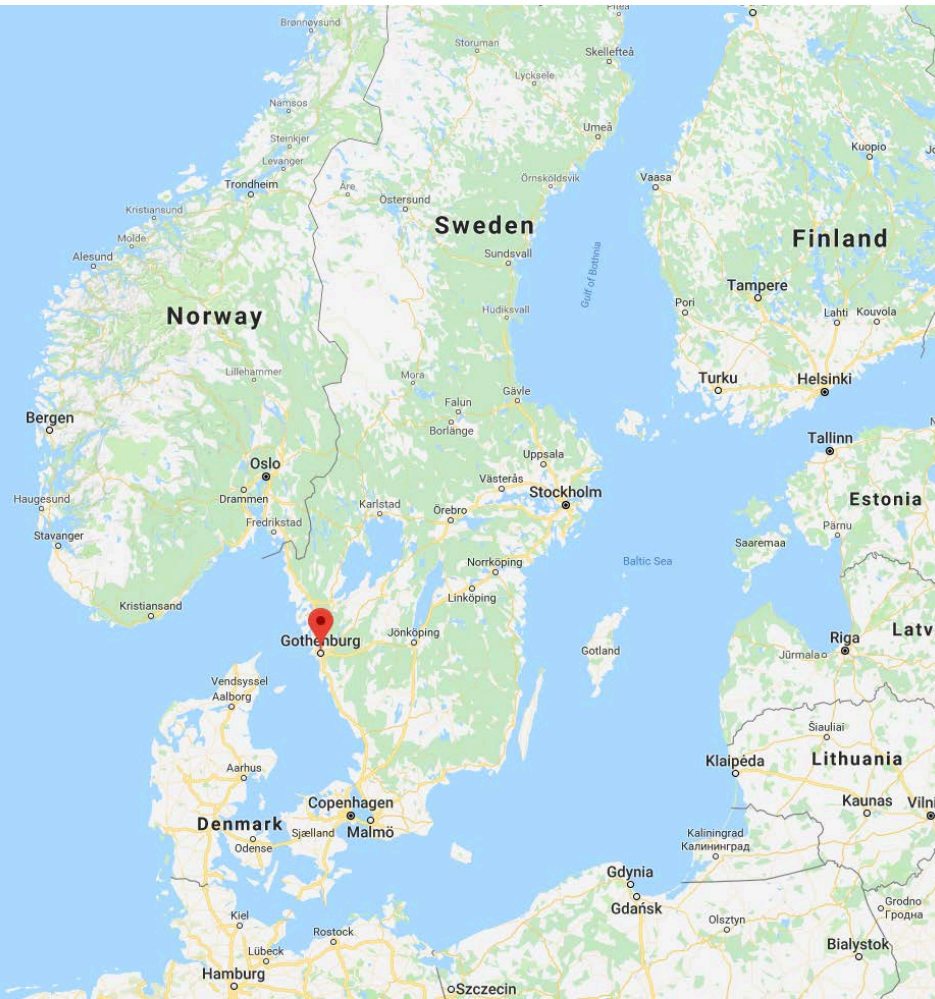
- **Electronic Circuits & Laboratory**
 - UB EE 311 & 353 Electronic Devices & Circuits 2 – 6 credits
- **Computer Architecture and Introduction to Microprocessors**
 - UB EE 379 Embedded Systems – 3 credits
- **Communication Systems**
 - UB EE 383 Communication Systems – 3 credits
- **Fundamentals of Power Engineering**
 - UB EE 336 Fundamentals of Energy Systems – 3 credits
- **Operating Systems**
 - UB CSE 421 Introduction to Operating Systems – 3 credits
- **Signals and Systems**
 - UB EE 205 Signals and Systems – 3 credits
- **Probability and Statistics**
 - UB EE 305 Applied Probability – 3 credits
- **French Language and Culture**
 - UB GEN ED – 3 credits
- **Algorithms Design and Analysis**
 - UB CSE 331 Introduction to Algorithm Analysis and Design – 3 credits

Elective Courses

- Choose one out of six (3 credits):
 - Microelectronics
 - UAVs / Drones
 - Internet of Things
 - Image and Virtual Reality
 - Artificial Intelligence
 - Big Data
- Transfer as Elective (3 credits)



Chalmers University Gothenburg, Sweden





Chalmers University Gothenburg, Sweden

- **Top-ranked Engineering School in Sweden**
 - Among the first in Europe!
- **Exchange Model**
 - UB Senior students take master-level courses in English for up to two semesters
 - Students are registered at UB
 - Can take online version of required courses such as EE 408 Senior Seminar
 - Only administrative fees are paid at Chalmers



Very Comprehensive Program

- **Students can take courses in all focus areas in UB EE (Communications & Networking, Electronics & Solid State Physics, Photonics & Optics, Power Systems)**
 - Digital Communications
 - Wireless Communication Networks
 - Multimedia and Video Communication
 - Real Time Systems
 - Introduction to Electronic System Design
 - Introduction to Integrated Circuit Design
 - Methods for Electronic System Design and Verification
 - Electric Drives
 - High Voltage Engineering
 - Power Market Engineering
 - Power System Operation
 - Power System Analysis



How To Find Courses at Chalmers

1. Go to the Student Portal:
<https://student.portal.chalmers.se/en/Pages/default.aspx>
2. Click on Studies
3. Click on Programme information
4. Click on Search programme
5. On Programme type select Masters Programme
6. Click on Search
7. Example: click on MPCOM COMMUNICATION ENGINEERING, MSC
PROGR



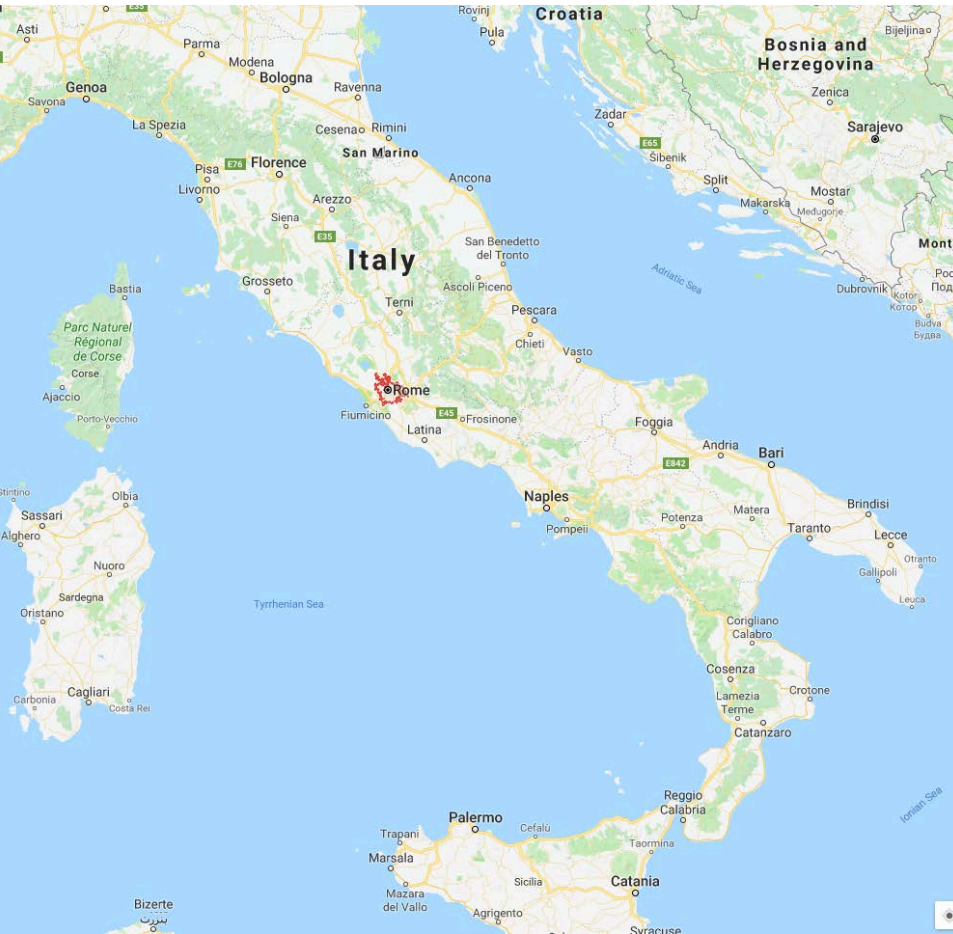
How To Find Courses at Chalmers

8. You will see the courses offered in the academic year 2018/2019
 - Their academic year is divided into 4 terms
9. Take for instance AUTUMN TERM Study period 1
 - Starts early September
8. For example, click on the course SSY121 Introduction to Communication Engineering (7.5 ECTS)
 - NOTE: 2 ECTS = 1 US credit hour
9. The following information on the course is shown: Eligibility, Prerequisite, Aim, Learning outcome, Content/Organization/Literature



Sapienza, University of Rome

Rome, Italy





Sapienza, University of Rome

Rome, Italy

- **Top-ranked Engineering School in Italy**
 - Largest university in Europe, one of the oldest (founded in 1303 A.D.)
- **Exchange Model**
 - UB Senior students take master-level courses in English for up to two semesters
 - Students are registered at UB
 - Can take online version of required courses such as EE 408 Senior Seminar
 - Only administrative fees are paid at Sapienza



Focused Programs

- Sapienza should be the target destination for students willing to specialize in **Communications, Networking, Machine Learning, AI and other CSE-flavored topics**
 - Wireless Networking Systems
 - Computer Networks
 - Network Infrastructures
 - Computer and Network Security
 - Machine Learning
 - Artificial Intelligence I & II
 - Data Management
 - Distributed Systems
 - Robotics 1
 - Neural Networks
 - Micro Controllers
 - Computer Graphics
 - Vision and Perception



Course Availability

- For the most updated list, go to:
 - <http://ccli.dis.uniroma1.it/?q=en>
 - MS in Computer Science
 - MS in Artificial Intelligence and Robotics
- Complete list of courses:
 - http://inspatdiet.uniroma1.it/?page_id=4535

Additional programs available to EE students...

<u>Program Name</u>	<u>City</u>	<u>Country</u>
<u>United Kingdom: Cardiff University</u> (Exchange)	Cardiff	United Kingdom
<u>United Kingdom: Newcastle University</u> (Exchange)	Newcastle upon Tyne	United Kingdom
<u>United Kingdom: Swansea University</u> (Exchange)	Swansea	United Kingdom
<u>United Kingdom: University of Kent</u> (Exchange)	Canterbury	United Kingdom
<u>United Kingdom: University of Leicester</u> (Exchange)	Leicester	United Kingdom
<u>United Kingdom: University of Sheffield</u> (Exchange)	Sheffield	United Kingdom

Additional programs available to EE students...

<u>Program Name</u>	<u>City</u>	<u>Country</u>
<u>Australia: Monash University</u> (Exchange)	Melbourne	Australia
<u>Denmark: Technical University of Denmark</u> (Exchange)	Copenhagen	Denmark
<u>Finland: University of Oulu</u> (Exchange)	Oulu	Finland
<u>Germany: International Research Experience Program</u> (Exchange)	Darmstadt	Germany
<u>Korea: Korea University</u> (Exchange)	Seoul	South Korea
<u>Singapore: Nanyang Technological University</u> (Exchange)	Singapore	Singapore

Cost of Study Abroad???

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Housing???

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Transportation???

Tuition???

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Cost of Study Abroad 😊 😊 😊

- In all the programs:
 - Your financial support is still in place!!!
 - Living in Europe is comparable (or even cheaper) than living in Buffalo (more bang for the buck...)
 - Please check the budget sheets in each program

EE Fellowships

- EE provides travel fellowships up to \$2,000 per fellowship
- Fully compatible with other Fellowships provided by the UB Study Abroad Office!
- See the EE Study Abroad Information page for details:
 - Submit your resume and a 500-word Statement of Plans essay (what you hope to learn and how it will impact your studies and career) to Kimberly Kriz after receiving acceptance to your Study Abroad program.

Academic Calendar

- **ENSEA:**
 - January 18 – May 30
- **Chalmers University**
 - September 1 - January 15
 - January 20 – June 1
- **Sapienza, University of Rome**
 - October 1 – December 20 (Exams in January, February)
 - February 20 – May 30 (Exams in June, July)

How to Apply?

- **ENSEA:**
 - https://buffalo-sa.terradata.com/index.cfm?FuseAction=Programs.ViewProgram&Program_ID=10018
- **Chalmers University**
 - https://buffalo-sa.terradata.com/index.cfm?FuseAction=Programs.ViewProgram&Program_ID=10041
- **Sapienza, University of Rome**
 - https://buffalo-sa.terradata.com/index.cfm?FuseAction=Programs.ViewProgram&Program_ID=10043
- **Other Programs**
 - **Consult the UB Office of Study Abroad Programs Website**
 - <https://buffalo-sa.terradata.com/index.cfm?FuseAction=Programs.ListAll>

Deadlines

- To Start in the Spring Semester
 - Apply by October 1st!
- To Start in the Fall Semester
 - Apply by March 15th!
- Please contact us if you need flexibility with the dates above

You are not alone!

- EE Faculty will work with you individually to pre-approve the list of courses you will take abroad so you will not have problems with requirements/equivalencies
- UB Study Abroad (Krista Paszkowsky, studyabroad@buffalo.edu) will work with you on everything else!

Interested?

- Download these slides from:
<https://engineering.buffalo.edu/ee/academics/enhancing-your-undergraduate-experience/study-abroad-and-international-exchanges.html>
- Leave us your name & e-mail address
 - We will email you these slides, any updates, upcoming deadlines
- Feel free to contact
 - Krista Paszkowsky: kristapa@buffalo.edu

STUDY ABROAD FAIR

Thursday, September 26
11am-2pm | Student Union Lobby



University at Buffalo

Study Abroad Programs

Office of International Education

201 Talbert Hall

www.buffalo.edu/studyabroad

#UBabroad   

UB EE Study Abroad

**THANKS FOR
YOUR
ATTENTION**

