UB EE Study Abroad Programs 2016-2017

Friday, September 15, 2017 @ Noon
Davis Hall 230A
Prof. Josep M. Jornet (jmjornet@buffalo.edu)
Have you ever thought of living and studying abroad for (at least) one semester?

Option a)  

Option b), c), d), e), ...
UB EE Study Abroad Programs

- Join a top European university for one semester or entire academic year
- Earn credits towards your UB degree
  - By taking courses in English, equivalent to the ones you would be taking here
- Learn or improve your knowledge of a foreign language and culture
  - By fully immersing into it
More importantly…
Make a difference in your career!
1. Chalmers University, Gothenburg, Sweden
2. University of Rome La Sapienza, Rome, Italy
3. Universidad Politécnica de Valencia, Spain
4. Telecom SudParis, Paris, France
5. ENSEA, Cergy, France
Who is Eligible?

- ENSEA program is thought for junior students, offered during the Spring Semester
  - Apply at the beginning of your junior fall semester (NOW!!!)
  - Pay tuition at ENSEA

- The other programs are designed for senior students in their Fall and/or Spring semesters
  - Apply at the beginning of your junior spring semester
  - Pay tuition at UB
<table>
<thead>
<tr>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
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<td><strong>Fall</strong></td>
<td><strong>Spring</strong></td>
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<tr>
<td>MTH141 Calculus I</td>
<td>MTH142 Calculus II</td>
<td>MTH306 Intro to Differential Equations</td>
<td>MTH241 College Calculus III</td>
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<tr>
<td>CHE107 Chemistry I</td>
<td>PHY107 Physics I</td>
<td>EE202 Circuit Analysis I</td>
<td>EE205 Signals &amp; Systems</td>
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<td>EAS140 Engineering Principles</td>
<td>EE101 or Technical Elective</td>
<td>PHY108 General Physics II</td>
<td>PHY207 General Physics III</td>
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<td>Gen Ed</td>
<td>EAS202 Engineering Impact on Society</td>
<td>PHY158 General Physics II Lab</td>
<td>PHY257 General Physics III Lab</td>
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<td>Gen Ed</td>
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<td>EE178 Digital Principles</td>
<td>EAS230 Engineering Computation</td>
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<td>EE305 Applied Probability</td>
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<td>17 hours</td>
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<td>16 hours</td>
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**EE Flowsheet**
Chalmers University

Gothenburg, Sweden
Chalmers University
Chalmers University

- Top-ranked Engineering School in Sweden, among the first in Europe

- **Exchange Model**
  - UB Senior Students participate in one (or two semesters) at Chalmers by taking master-level courses
MS Programs of Interest

1. MPCOM Communication Engineering
2. MPCSN Computer Systems And Networks
3. MPEPO Electric Power Engineering
4. MPEES Embedded Electronic System Design
How To Find Courses at Chalmers

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
8. You will see the courses offered in the academic year 2017/2018
   ◆ Their academic year is divided into 4 terms

9. Take for instance AUTUMN TERM Study period 1
   ◆ Starts early September

10. For example, click on the course SSY121
    Introduction to Communication Engineering (7.5 ECTS)
    • NOTE: 2 ECTS = 1 US credit hour

11. The following information on the course is shown:
    Eligibility, Prerequisite, Aim, Learning outcome, Content/Organization/Literature
Relevant Courses

- 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
University of Rome
La Sapienza

Rome, Italy
University of Rome
La Sapienza
University of Rome
La Sapienza

◊ A top engineering school in Italy
  ◊ Largest university in Europe, one of the oldest
    (founded in 1303 A.D.)

◊ Exchange Model:
  ◊ UB Senior Students participate in one (or two
    semesters), by taking master-level courses
Courses Offered in English

- For the most updated list, go to:
  - [http://cclii.dis.uniroma1.it/?q=en](http://cclii.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](http://inspatdiet.uniroma1.it/?page_id=4535)
Semester 1 (Fall)

- Theoretical computer Science
- Artificial Intelligence I
- Data Management
- Computer and Network Security
- Distributed Systems
- Robotics 1
- Network Infrastructures
- Business models for information technologies
- Neural Networks
- Micro Controllers
- Artificial Intelligence II
- Computer Graphics
- Machine Learning
- Vision and Perception
Semester 2 (Spring)

- Capacity Planning
- Software Engineering
- Wireless Networking Systems
- Natural Language Processing
- Architecture and Distributed Systems
- Computer Networks
- Software and Services for Information Society
- Seminars in Computer Networks
- Seminars in Architectures and Distributed Systems
- Seminars in Software and Services
Universidad Politécnica de Valencia

Valencia, Spain
Universidad Politécnica de Valencia
Universidad Politécnica de Valencia

- A top engineering university in Spain

- Exchange Model:
  - UB Senior Students participate in one (or two semesters), by taking master-level courses
Courses Offered in English

For the most updated list, go to:

http://www.buffalo.edu/~jmjornet/StudyAbroad/UP_V_ENG_courses.pdf
Telecommunications Engineering

- Digital Communication Systems
- Mobile and Wireless Communication Systems
- Satellite Communications Systems
- Optical Wireless Systems
- Image and Video Processing
- Nanophotonics
- Optical Signal Processing in Optical Networks
- Traffic Management and Quality of Service
- Network Architecture and Protocols for Mobile Communications
- Distributed Real Time Systems
- Content Distribution Mechanisms over IP Networks
Computer Engineering

- Computer Graphics
- Study Of An Operating System
- Digital Media Acquisition And Representation
- Computer Systems Security
- Computer Architecture And Engineering
- Software Engineering
- Computer Networks
- Mathematical Structures For Computer Science II
- Real Time Systems
- Distributed Systems
- Local Area Networks And Internetworking
- Operating System Management
- Robotics
Power Engineering

- Power Electronics
- Advanced Industrial Electronic Systems
- Advanced Control Techniques
- Combustion Engines
- Fuel Cells As An Alternative Energy Source
- Thermal Characterization Of Polimeric Materials
Telecom SudParis

Paris, France
Telecom SudParis
Telecom SudParis

- A top Telecommunications School in France

- Exchange Model:

  - UB Senior Students participate in one (or two semesters), by taking master-level courses
Programs Offered in English

1. Master of Science in Automatic Data Processing
2. Computer and Communication Networks
3. Communication Networks and Services
4. Electronic and Optical Engineering
5. Software Engineering for Ambient Intelligence
6. Virtual and Augmented Reality
Courses Offered in English

http://www.telecom-sudparis.eu/p_fr_formations_formations-post-grade_MSc_1179.html
Courses Offered in English

- CSC 7327: Ambient Intelligence & persuasive Systems
- MAT 7007: Application of statistical methods
- NET 7007: Computer Networking
- NET 7012: Converged Services for Next Generation Networks
- PHY 7002: Fibre-Optic Communications - I
- EXT 7003: Image Processing
- EXT 7007: Implementation of Pattern Recognition & Neural Networks
- PHY 7510: Microwave project
- PHY 7001: Microwaves and antennas
- CSC 7321: Middleware for Distributed Applications
- NET 7321: Network security
- CSC 7203: Object oriented computing and distributed systems
Courses Offered in English

- CSC 7322  Object oriented development
- NET 7006  Optimisation: Theory and Networks applications
- NET 7326  Optimization in networks
- EXT 7001  Pattern recognition & Neural Networks
- MAT 7001  Probability and Statistics
- NET 7011  Service-Oriented Computing
- SIC 7001  Signal enhancement methods
- CSC 7003  Software Engineering
- CSC 7332  Web services Applications and Architectures
- NET 7003  Wireless access and transport technologies
- NET 4519  Wireless Data Networks
- NET 7005  WPAN, WLAN, WNAN and broadcast technologies

UB EE Study Abroad
ENSEA
FAME
French American Exchange Program

Dr. Philippe Marc
Dr. Vanita Misquita
FAME: French American Exchange Program

- Students take courses during the Spring semester at ENSEA
  - A Top University located in Cergy, France
    (35 minutes from the center of Paris!)

- Who is eligible?
  - Junior Students from an undergraduate ABET-accredited university

Participating Universities

- 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
Courses Taught in English

- **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
- **Algorithms Design and Analysis**
  - UB CSE 331 Introduction to Algorithm Analysis and Design – 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
For All the Programs
Cost of Studying Abroad???

Tuition???

Housing???

Transportation???
Cost of Studying Abroad :)

In all the programs:

- You pay your **regular tuition at UB + Extra Fee**
  - ENSEA Program: 500 EUR off per student, if 3 or + students register!

- **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 will provide 10 travel fellowships per year
  $2,000 per fellowship
- At least enough to cover the roundtrip air-fare!
-
- Fully compatible with other Fellowships provided by the UB Study Abroad Office!
Academic Semesters

- **Chalmers:**
  - September 1 - January 15
  - January 20 – June 1

- **University of Rome La Sapienza**
  - October 1 – December 20 (Exams in January, February)
  - February 20 – May 30 (Exams in June, July)

- **Valencia:**
  - September 15 - December 20 (Exams in January)
  - February 1 - May 30 (Exams in June)

- **Telecom SudParis:**
  - September 1 - January exam period (no exact dates)
  - February 1 - June exam period (no exact dates)

- **ENSEA:**
  - January 18 – May 27
How to Apply?


Deadlines

 Odyssey To Start in the Fall Semester
 Odyssey Apply by March 15th!
 Odyssey To Start in the Spring Semester
 Odyssey Apply by October 1st!
 Odyssey Please contact us if you need flexibility with the dates above
You Are Not Alone!

- EE (jmjornet@buffalo.edu) 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.

- Study Abroad (studyabroad@buffalo.edu) will work with you on all the administrative matters.
Interested?

☐ Download these slides from:
http://www.acsu.buffalo.edu/~jmjornet/StudyAbroad/F2017.pdf

☐ Leave us your name & e-mail address
  ☐ We will email you these slides, any updates, upcoming deadlines

☐ Feel free to contact
  ☐ Prof. Josep M. Jornet: jmjornet@buffalo.edu
  ☐ Krista Paszkowsky: kristapa@buffalo.edu
Ready? Set? Go!

Europe is waiting for you!