Year in Europe:
Year 2 First briefing

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Course weighting

The course unit weighting for the 242 ECTS of your four year programme is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Lecture courses &amp; laboratory (62 ECTS)</td>
<td>Lecture courses &amp; laboratory (60 ECTS)</td>
<td>Research project (36 ECTS) (*)</td>
<td>Lecture courses &amp; laboratory (42 ECTS)</td>
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<tr>
<td></td>
<td></td>
<td>8.3%</td>
<td>25.0%</td>
<td>15.0%</td>
<td>29.2%</td>
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<td></td>
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<td>8.3%</td>
<td>25.0%</td>
<td>25.0%</td>
<td>41.7%</td>
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<tr>
<td></td>
<td></td>
<td>Lecture courses (24 ECTS)</td>
<td></td>
<td>Lecture courses (24 ECTS)</td>
<td>Two Comprehensive Papers (18 ECTS)</td>
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<tr>
<td></td>
<td></td>
<td>10.0%</td>
<td></td>
<td>10.0%</td>
<td>12.5%</td>
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(*) The research project is weighted as follows:
- Written report (40-60 pages, marked at Imperial): 80% (incl. 16% contribution of continuous assessment mark by your local supervisor)
- Oral presentation of your work (in host language): 20% (assessed abroad)
Weighting of grades in Year 3

Lectures Courses (40%)

Oral (20%)
Cont. Assess. (16%)

Project (60%)

Report (64%)
Marker A (50%)
Marker B (50%)
Time line: Year 2

Selection of host institution

• First briefing & overview (Today)
• Full briefing & final selection (Feb 2019)
• Workshop on your year abroad (June 2019)
• Intensive language courses (1 week, after final exam week in June 2019)

Differences to “standard” physics MSci:

• 6 ECTS of language (unless fluent)
  • Instead of Sun, Stars & Planets or Environmental Physics (you can take these in Year 4 if you wish, as an option)
• Encouraged to follow Mathematical Methods:
  • Associated with 1/2 lab (if not followed, need to follow full lab)
  • Mathematical Analysis in Year 1 not required (need >65% in Year 1 Maths)
  • Course highly relevant if you follow theoretical courses in Year 3 or Year 4
Choosing your location

- You will be sent the choice form in Feb
- These will be due late Feb
- You will be notified of the final choice shortly after
- Then you make contact with the host and fill in learning agreement & paperwork
Time line: Year 2

• Pre-requisite for leaving abroad: minimum 60% combined mark (Yrs 1&2)

• Go to Options fair for your 4th year
  • Early May 2019
  • Though not yet relevant, it’s your best chance to get “hands on” info for 4th year options

• Parties
  • Today (after this event, Level 8 Blackett)
  • Mid March 2019
  • Useful for you to mingle with past YiE students and Visiting students from countries/institutions that may interest you - this gives you first-hand info on how the places are.
Time line: Year 3

• Term starts between August and October, depending on country
• You follow lecture courses worth 24 unweighted ECTS:
  • Need to be mostly in local language (weighting factor 1.5) but some can be in English (weighting factor 1.0)
  • Typically you would follow 5-6 courses abroad, but this varies greatly between institutions
  • You sit exams for 24 weighted ECTS
  • We count the best 18 weighted ECTS towards your grade
• Project – 36 ECTS
  • Average to 3 days/week
  • This is usually the most enjoyable part of your year abroad
• You are visited twice during the year by Academic Visitor
Our partner institutions

Germany

Heidelberg:
• Ruprecht-Karls-Universität

Freiburg:
• Albert Ludwigs Universität

Erlangen/Nürnberg:
• Friedrich Alexander Universität
Freiburg

Albert Ludwigs Universität
(www.uni-freiburg.de)

- Strength is high-energy physics (both theory and experiment), also quantum physics/information

- The Kiepenheuer Institute for the physics of the sun (http://www.leibniz-kis.de)


- Past project areas include particle (high energy) physics, solid state physics, quantum decoherence and atomic physics
Heidelberg

Ruprecht Karls Universität
(www.uni-heidelberg.de)

• On the River Neckar near Rhine
• Oldest university in Germany (1386)
• German Excellence University
• Strong in high-energy physics, cosmology, and quantum physics, in particular quantum gases
Erlangen/Nürnberg
Friedrich Alexander Universität
(www.uni-erlangen.de)

- Second-largest university in Bavaria, 20 km from Nuremberg, 190 km north of Munich
- More technical / experimental
- Broad range of physics courses
- Past project areas include solid state, surface science, optics, semiconductor, atomic, PP, quantum optics and quantum information, photonics....
- Close links to Max Planck Institute for the Science of Light
Our partner institutions

Switzerland

• Ecole Polytechnique Fédérale de Lausanne (EPFL)
Lausanne
Ecole Polytechnique Fédérale de Lausanne (www.epfl.ch)

- One of two Swiss Federal Institutes of Technology (the other being ETH Zürich)
- Among the world's most prestigious universities for technology
- Beautiful location / campus close to alps and centrally placed within Europe
- Large dynamic multinational Department / Institute
- Large range of options and projects, own plasma centre, observatory & access to CERN
Our partner institutions

France

Paris:
• Université de Paris-Sud (Orsay)

Grenoble:
• Ecole Supérieure de physique, électronique et matériaux (Phelma), part of Institut National Polytechnique de Grenoble (INPG)
Paris-Sud (Orsay)

Université de Paris-Sud (www.u-psud.fr)

- Part of new University Paris-Saclay, a cluster dubbed “French Silicon Valley”

- Offering the widest range of research on any campus in France

- Students will be part of the “Magistère de Physique Fondamentale” offering a level and quality of studies similar to those in a “Grande Ecole”

- Orsay at 28 km SW of Paris centre

- Projects in solid state, nuclear, particle, atomic and molecular, astrophysics
Grenoble

Institut National Polytechnique de Grenoble (INP Grenoble / Grenoble Institute of Technology):

Ecole Nationale Supérieure de Physique, Electronique et Matériaux (Phelma) (http://phelma.grenoble-inp.fr)

- “Grande Ecole”
- In French Alps (close to Italy/Switzerland)
- Main project areas material science, nuclear physics, particle physics, nanophysics, biophysics
- Associated international research centres
Our partner institutions

Italy

Padova:
• Università degli studi di Padova
Padova
Università degli studi di Padova (www.dfa.unipd.it)

• Second oldest university in Italy (1222)
• Alumni include Copernicus and Galilei
• Strong theoretical outlook in courses
• Projects mainly computational or experimental, especially in astronomy and related fields
• Associated with the accelerator and nuclear lab of INFN (Italian Institute for Nuclear Physics), close links to Paduan Astronomical Observatory of the Italian Institute for Astrophysics (INAF)
Our partner institutions

Spain

Madrid:
• Universidad Autónoma de Madrid

Valencia:
• Universitat de Valencia

Tenerife:
• Universitat de La Laguna
Madrid

Universidad Autonoma de Madrid
(www.uam.es/ss/Satellite/Ciencias/en/home.htm)

- Ranked first amongst Spanish Universities
- Cantoblanco Campus is located 15 km north of Madrid
- Large and active department
- Strengths: theoretical physics, photonics, condensed matter physics, surface physics
Valencia

Universitat de Valencia (www.uv.es)

- One of oldest universities in Spain (1499)
- A large and active department located on Burjassot Campus 8 km NW of downtown
- Strengths: Imaging, Optics, photonics, remote sensing, electromagnetism, astronomy/astrophysics
La Laguna (Tenerife)

Universidad de La Laguna (www.ull.es)
• Oldest university on Canaries (1701)
• Physics located on Campus de Anchieta
• Major astronomical observation site
• Specialises in applied physics and astrophysics
• Access to cutting-edge data and facilities and internationally renown research group
• Best for anyone who wants to do observational astronomy research at the Institute for Astrophysics
Our partner institutions

USA

Boston:
• MIT
The MIT Campus and Boston

MIT (http://www.mit.edu/)

- Founded 1861
- One of most prestigious institutes in world (1 exchange place)
- Open to all MSci students
- Select candidate on Academic record, CV and Personal statement
Physics Exchange contacts

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Further resources

• www.imperial.ac.uk/study/ug/courses/physics-department/physics-europe-msci
  (Includes a Four Year Diary with year-by-year key steps)

• www.imperial.ac.uk/natural-sciences/departments/physics/students/current-students/year-abroad/4-year-diary

• Imperial College Erasmus society:
  https://www.imperialcollegeunion.org/activities/a-to-z/230

(Will include this talk under “Downloads” hyperlink)
Final remarks

• Spending a year abroad on your own may at first seem daunting: however, you will overcome this initial fear quickly once there

• It is important that you put effort into learning the language well: you will be following physics lectures in the local language and be writing your exams in it

• The lecturing and exam style will be different abroad

• We will support you in every possible way and have a wide network of people looking after you as well as a lot of experience to build on from previous students abroad

• The project is in most cases a highlight: it feels almost like a real scientist’s job!

• Past students all very positive!