MPhil in Computational Biology

Stephen Eglen

- Programme structure (CCBI)
- Internships
- Application process
- Life after MPhil
MPhil in Computational Biology

<table>
<thead>
<tr>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct–Dec</td>
<td>Jan–Mar</td>
<td>Apr–May</td>
<td>May–Aug</td>
</tr>
<tr>
<td>Genomics I</td>
<td>Image Analysis / Biodesign</td>
<td>Exam Systems Biology</td>
<td>Internship</td>
</tr>
<tr>
<td>Deep learning</td>
<td>Cancer Evolution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientific Programming</td>
<td>Genomics II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genome Sequence Analysis</td>
<td>Population Genetics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminar in Computational Biology</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pre-term:

- Introduction to molecular biology

Assessment mostly via coursework (one exam). This is an intensive programme!
Internships

Key component of course is 12–14 week summer project.

Dissertation and end-of-project talks, hosted over two/three days. Students work either in local company, university lab (or go further afield). Previous internships:

- Cambridge: Depts of Chemistry, Zoology, Computer Lab, LMB, Cambridge Research Institute
- Microsoft Research
- Wellcome Trust Sanger Institute
- European Bioinformatics Institute
- Harvard Medical School: Systems Biology
- Norwich Institute for Food Research
- GSK
- AstraZeneca
Application process

• Applications assessed regularly, closing date mid February.
• 15 minute interview via Skype (or in-person).
• Key elements of a good application:
  1. Why this programme, and why Cambridge?
  2. References
  3. Evidence of computational/mathematical ability.
• We have little/no funding available. Apply by Dec for University funding options.
Life after MPhil

- Approx 60% of students go directly into PhD programmes.
- Some wait a year before applying.
- Many research assistant posts available in institutes/start ups around Cambridge.
- Internship can be a good way to find a future position.