THE INTEGRATED ENGINEERING PROGRAMME (IEP) FOR CS
Research Led Teaching

A **rigorous, distinctive** and **bold** education, that is research-based, emphasising the practical application of theory and integrating transferable & employability skills.

A **distinctive** UCL Engineering education encompassing all Departments in the Faculty, playing to our strengths in interdisciplinary research.

Demonstrating the **interdisciplinary** nature of major engineering projects and the role of engineering in society.

Strengthening the student experience and increase further the diversity of our intake.
We Must Succeed

Top priority to make the IEP work well.

Put UCL Engineering at the forefront of Engineering education.

Make us the leading department for CS education.
# Key Features

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<tr>
<th>Year 1 - Term 1</th>
<th>Core</th>
<th>Specialisms</th>
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<tbody>
<tr>
<td></td>
<td>Analysis</td>
<td>Design</td>
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<tr>
<td>Modelling, Analysis, Design, Professional and Transferable Skills and discipline specific content in the context of engineering problem solving</td>
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<tr>
<th>Year 1 – Term 2</th>
<th>Core</th>
<th>Specialisms</th>
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<td>Design and Professional Skills</td>
<td>Specialist Core</td>
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<tr>
<th>Year 2 – Term 1</th>
<th>Core</th>
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<tr>
<td>Mathematical Modelling and Analysis</td>
<td>Design and Professional Skills</td>
<td>Specialist Core</td>
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<th>Year 2 – Term 2</th>
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<td>Design and Professional Skills</td>
<td>Minor</td>
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<tr>
<th>Year 2 – Term 3</th>
<th>Core</th>
<th>Specialisms</th>
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<td>How to Change the World.</td>
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<th>Year 3</th>
<th>Core</th>
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<td>Project</td>
<td>Professional Skills</td>
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<th>Core</th>
<th>Specialisms</th>
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<td>Project</td>
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<td>Project</td>
<td>Professional Skills</td>
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<tr>
<td>INDUCTION WEEK</td>
<td>READING WEEK</td>
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<td>ENGS102P Design and Professional Practice</td>
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<td>COMP101P Principles of Programming</td>
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<td>COMP102P Theory I</td>
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Year 1 – Term 2

- **COMP103P**
  Object-oriented Programming

- **COMP104P**
  Theory II

- **COMP105P**
  Robotics Programming

- **MATH6301**
  Discrete Mathematics

- **COMP103P**
  Object-oriented Programming

- **COMP104P**
  Theory II

- **COMP105P**
  Robotics Programming

- **MATH6301**
  Discrete Mathematics
Year 2 – Term 1 (4 + 1 + RW + 4 + 1)

- COMP202P Design and Professional Practice II
- COMP204P Software Engineering & HCI
- COMP201P Networking and Concurrency
- COMP205P Mathematics Part
- COMP203P Logic and Database Theory

Reading Week:
- COMP202P Design and Professional Practice II
- COMP204P Software Engineering & HCI
- COMP201P Networking and Concurrency
- COMP205P Mathematics Part
- COMP203P Logic and Database Theory
Year 2 – Term 2 (4 + 1 + RW + 4 + 1)

COMP202P
Design and Professional Practice II

COMP206P
Compilers

COMP205P
Statistics Part

IEP Minor Module 1

COMP202P
Design and Professional Practice II

COMP206P
Compilers

COMP205P
Statistics Part

IEP Minor Module 1
Minor Structure - 3 modules

Introductory module Year 2 Term 2
Intermediate module Year 3 Term 1
Advanced module Year 3 Term 2

• Compulsory for all students
• A student can choose any minor
• Will change nature of 3rd year, especially for BSc students

• CS is running Data Science with MS&I, and planning Robotics
  • There is no Computing minor…
To Do

• Launch year 1 in September 2014
  • Now in advanced development
• Work on year 2 and the Minors (for 2015)
  • Planning done, detailed development underway
• Update years 3 and 4 (for 2016 and 2017)
  • Development to start in next year
How does the IEP affect you?

• The way we teach and interact with students will change.
• Tutorial system will evolve - you will all be tutors.
• Anyone teaching a UG module will need to be making it IEP consistent.
  • 2nd, 3rd, 4th year module lecturers need to get involved now.
• Teaching excellence will be as important as research excellence.
• A similar process will be started for all MSc programmes - no escape!
Final Year Projects

• More students, means more projects to supervise (starting now).
  • Everyone should except at least one, normally two students.
• 1 and 1.5 credit projects in IEP
• Also strong focus on interdisciplinary projects
• MEng students now take 3rd year research modules.
  • Will be much better prepared to do research projects with you - take advantage of this.
Our Weakest Area (UG & PG)

We need to get assessment right:

- The right amount (we over assess).
- The right kind.
- Prompt marking and feedback.
  - MS&I has set the standard of 1 week for ALL coursework.
How to Change the World
2-13 June 2014