

Computer Science (Human Computer Interaction) wIE MEng (Hons) options

You must take these core units making up a minimum of 120 credits.

Level 1 - compulsory units

All of the units in this pool are mandatory.

| Code | Title | Credits |
|-----------|---------------------------------------|---------|
| COMP10120 | First Year Team Project | 20 |
| COMP15111 | Fundamentals of Computer Architecture | 10 |
| BIOL10832 | Excitable Cells | 10 |
| COMP13212 | Data Science | 10 |
| COMP16321 | Introduction to Programming 1 | 20 |
| COMP16412 | Introduction to Programming 2 | 10 |
| PSYC10100 | Research Methods | 20 |
| PSYC10431 | Introduction to Cognition | 5 |
| PSYC11222 | Brain and Behaviour | 10 |
| PSYC11322 | Sensation & Perception | 5 |

Level 2 options

You will be automatically enrolled on nine course units which total 90 credits.

For the remaining 30 credits:

You need to select a minimum of two course units totalling 20 credits or a maximum of three course units totalling 30 credits from Option Pool 1.

You may select a minimum of zero course units or a maximum of one course unit totalling 10 credits from Option Pool 2.

If you take a 20 credit whole year course unit you are not permitted to drop this unit when course unit selection reopens at the start of semester 2.

You must ensure your credits are balanced over the academic year (60 credits in each semester).

Level 2 - compulsory units

All of the units in this pool are mandatory.

| Code | Title | Credits | Theme |
|-----------|--|---------|-----------------------------|
| COMP23111 | Database Systems | 10 | Web and Distributed Systems |
| COMP23311 | Software Engineering 1 | 10 | Agile Methods |
| COMP23412 | Software Engineering 2 | 10 | Agile Methods |
| BIOL22332 | Motor Systems for Human Computer Interaction | 10 | None |
| BIOL22341 | Sensory Systems for Human Computer Interaction | 10 | None |
| PSYC21112 | Perception & Action | 5 | None |
| PSYC21122 | Cognitive Neuroscience | 10 | None |
| PSYC21181 | Cognition | 5 | None |
| SOST20022 | Essentials of Survey Design & Analysis | 20 | None |

Level 2 - option pool 1

From this option pool choose a maximum of 30 credits
and a minimum of 20 credits.

| Code | Title | Credits | Theme |
|-----------|-----------------------------------|---------|-------|
| BIOL21261 | Endocrinology | 10 | None |
| BIOL21321 | Membrane Excitability | 10 | None |
| BIOL21451 | How to Make a Brain | 10 | None |
| COMP24011 | Introduction to AI | 10 | None |
| COMP26020 | Programming Languages & Paradigms | 20 | None |
| PSYC21061 | Statistics and Data Analysis | 10 | None |

PSYC21061

May have clashes

Level 2 - option pool 2

From this option pool choose a maximum of 10 credits
and a minimum of 0 credits.

| Code | Title | Credits | | Theme |
|-----------|----------------------------------|---------|--|-------|
| COMP22712 | Microcontrollers | 10 | None | |
| COMP24112 | Machine Learning | 10 | None | |
| COMP24412 | Knowledge-based AI | 10 | Natural Language, Representation and Reasoning | |
| COMP25212 | System Architecture | 10 | Computer Architecture | |
| COMP27112 | Introduction to Visual Computing | 10 | Visual Computing | |
| SOST20042 | Market Research | 10 | None | |

SOST20042

May have clashes

Level 3 options

You will be automatically enrolled on six course units, including the Third Year Project course unit, totalling 100 credits.

For the remaining 20 credits:

You may choose a minimum of zero course units or a maximum of one course unit totalling 10 credits from Option Pool 1.

You may choose a minimum of zero course units or a maximum of one course unit totalling 10 credits from Option Pool 2.

You may choose a minimum of zero course units or a maximum of two course units totalling 20 credits from External Option Pool 1 (listed as Option Pool 3 below).

If you take a 20 credit whole year course unit you are not permitted to drop this unit when course unit selection reopens at the start of semester 2.

You must ensure your credits are balanced over the academic year (60 credits in each semester).

Level 3 - compulsory units

All of the units in this pool are mandatory.

| Code | Title | Credits | | Theme |
|-----------|---|---------|----------------------------|-------|
| COMP30040 | 3rd Year Project (Single Honours 40 Credits) | 40 | None | |
| COMP33312 | Agile Software Pipelines | 10 | None | |
| COMP33511 | User Experience | 10 | Interactive Systems Design | |
| MCEL30031 | Enterprise Management for Computer Scientists | 10 | None | |
| MCEL30032 | Managing Finance in Enterprises for Computer Scientists | 10 | None | |
| SOST30022 | Advanced Social Network Analysis | 20 | None | |

Level 3 - option pool 1

From this option pool choose a maximum of 10 credits
and a minimum of 0 credits.

| Code | Title | Credits | | Theme |
|-----------|-----------------------------------|---------|------------------|-------|
| COMP34711 | Natural Language Processing | 10 | None | |
| COMP37111 | Graphics and Virtual Environments | 10 | Visual Computing | |
| COMP38311 | Advanced Distributed Systems | 10 | None | |

Level 3 - option pool 2

From this option pool choose a maximum of 10 credits
and a minimum of 0 credits.

| Code | Title | Credits | | Theme |
|-----------|--|---------|-----------------------------|-------|
| COMP34812 | Natural Language Understanding | 10 | None | |
| COMP35112 | Chip Multiprocessors | 10 | Computer Architecture | |
| COMP32412 | The Internet of Things: Architectures and Applications | 10 | Web and Distributed Systems | |
| COMP34212 | Cognitive Robotics | 10 | None | |

Level 3 - option pool 3

From this option pool choose a maximum of 10 credits
and a minimum of 0 credits.

| Code | Title | Credits | | Theme |
|-----------|---|---------|------|-------|
| BIOL31681 | Clocks, Sleep & the Rhythms of Life | 10 | None | |
| BIOL31692 | Learning, Memory & Cognition | 10 | None | |
| PSYC31242 | Understanding Dementia: Brain & Behaviour | 20 | None | |
| PSYC37111 | Emotion | 20 | None | |
| SOAN30811 | Anthropology of Vision, Memory and the Senses | 20 | None | |

You will be automatically enrolled on the Summer Industrial Project and MCEL40042: Business Feasibility Study which totals <u>40 credits</u>.

For the remaining <u>90 credits</u>:

You need to select a minimum of one course unit totalling <u>15 credits</u> or a maximum of two course units totalling <u>30 credits</u> from Option Pool 1.

You need to select one course unit totalling <u>15 credits</u> from Option Pool 2.

You may select a minimum of zero course units and a maximum of one course unit totalling <u>15 credits</u> from Option Pool 3.

You need to select a minimum of one course unit totalling <u>15 credits</u> or a maximum of two course units totalling <u>30 credits</u> from Option Pool 4.

You need to select a minimum of one course unit totalling <u>15 credits</u> or a maximum of two course units totalling <u>30 credits</u> from Option Pool 5.

Level 4 - compulsory units

All of the units in this pool are mandatory.

| Code | Title | Credits |
|-----------|----------------------------|---------|
| COMP40901 | UG MEng Industrial Project | 25 |
| MCEL40042 | Business Feasibility Study | 15 |

Level 4 - option pool 1

From this option pool choose a maximum of 60 credits and a minimum of 30 credits.

| Code | Title | Credits |
|-----------|---------------------------------|---------|
| COMP60411 | Modelling data on the web | 15 |
| COMP60711 | Data Engineering | 15 |
| COMP61011 | Foundations of Machine Learning | 15 |
| COMP61021 | Representation Learning | 15 |
| COMP62421 | Querying Data on the Web | 15 |

Level 4 - option pool 2

From this option pool choose a maximum of 60 credits and a minimum of 30 credits.

| Code | Title | Credits |
|-----------|---|---------|
| COMP60332 | Automated Reasoning and Verification | 15 |
| COMP60532 | Principles of Digital Biology | 15 |
| COMP60542 | Introduction to Health Informatics | 15 |
| COMP61332 | Text Mining | 15 |
| COMP61342 | Cognitive Robotics and Computer Vision | 15 |
| COMP62342 | Ontology Engineering for the Semantic Web | 15 |
| COMP62532 | Component-based Software Development | 15 |

Level 4 - option pool 3

From this option pool choose a maximum of 30 credits and a minimum of 15 credits.

| Code | Title | Credits |
|-----------|---|---------|
| BIOL60140 | Advanced Methods for Biological Sequence Analysis | 15 |
| BIOL60771 | Advanced Biotechnology | 15 |
| BMAN60422 | Data Analytics for Business Decision Making | 15 |
| BMAN71652 | Information and Knowledge Management | 15 |
| SOST70011 | Introduction to Statistical Modelling | 15 |