

Programme Specification

MSc Computer Science

MSc Computer Science (Year in Industry)

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| <i>School:</i> | London | |
| <i>Subject area:</i> | Computer Science | |
| <i>Entry from academic year:</i> | 2021-22 | |
| <i>in the month(s) of</i> | January, May and September | |
| <i>Awarding institution:</i> | York St John University | |
| <i>Teaching institution:</i> | York St John University | |
| <i>Delivery location:</i> | London Campus | |
| <i>Programme/s accredited by:</i> | | |
| <i>Exit awards:</i> | Postgraduate Certificate Computer Science Postgraduate Diploma Computer Science | |
| <i>UCAS code / GTTR / other:</i> | | |
| <i>Joint Honours combinations:</i> | | |
| <i>QAA subject benchmark statement(s):</i> | Computing (October 2019) | |
| <i>Mode/s of study:</i> | <u>MSc Comp Sci</u> full time for 1 year part time for 2 years | <u>MSc Comp Sci (Year in industry)</u> full time for 2 years part time for 3 years |
| <i>Language of study:</i> | English | |
| <i>Paired with Foundation Year</i> | No | |
| <i>Study abroad opportunities:</i> | No | |
| <i>Opt-in YSJU Placement Year opportunity:</i> | Yes | |

Introduction and special features

The MSc Computer Science at York St John University has been developed to provide you with the advanced knowledge and skills essential for a career in the fast paced and growing Information Technology and Computer Science sector. The programme emphasises both contemporary theory and skills practice with the option of applying for a two-year programme including a year devoted to industrial placements to provide you with an opportunity to gain real-world experience and develop professional networks. The placement year has been carefully located to allow you to utilise the time and experience to inform your dissertation.

A Coursework and Skills Focus

The programme utilises a variety of course work projects and assessments which are supported by weekly lectures, seminars and workshops. Our innovative and supportive staff will quickly guide you through the fundamentals of computer science to develop your own practical skills and help you to focus on your professional development in response to the employment needs of the industry.

Under the supervision of an academic member of staff, you will be supported to undertake an individual research project designed to enable you to show you can synthesise the skills you have learned in order to resolve a theoretical or applied problem.

Industry Facing to Provide Employable Graduates

In addition to specific knowledge and skills, you will be supported to develop key professional attributes through a number of activities including reflection on work-based practice to re-enforce your critical skills, addressing complex real-world situations through problem-based learning and having an opportunity to work with industry professionals during the placement year. Our London campus, where the programme is delivered, is located close to the East London Tech City (or Silicon Roundabout) which is home to a cluster of over 35 tech businesses with a wealth of industry expertise and placement opportunities.

A Supportive Learning Environment

Throughout the duration of the programme you will be well supported to grow and develop your skills, knowledge and interests. You will be allocated an academic tutor in your first week of study and be able to develop that supportive relationship throughout the duration of your studies whilst also working on developing your employability and professional development.

Throughout the programme we will provide regular opportunities for you to receive formative feedback on your progress, with guidance tailored to your needs in a supportive and constructive way.

With options to study full or part-time; to select a programme with or without a year in industry; and with 3 starting points of the programme in the year (January, May and September), there are a lot of options to choose the study mode which suits you.

Admissions criteria

You must meet the University's general entry criteria for [postgraduate](#) study. In addition, you must normally have:

- An existing 2:1 undergraduate degree in a relevant subject or equivalent or;
- Professional experience that demonstrates a propensity for the study of computer science. (For example, you may work in a system administrator's role and have several professional but not academic qualifications), or;
- Clear and demonstrable technical abilities in a related field of computing that would have equivalency to that of an individual who has completed a degree in a related field.

If your first language is not English, you need to take an IELTS test or an equivalent qualification accepted by the University (see <https://www.yorks.ac.uk/international/how-to-apply/english-language-requirements/>).

If you do not have traditional qualifications, you may be eligible for entry on the basis of [Accredited Prior \(Experiential\) Learning \(APL/APEL\)](#). We also consider applications for entry with advanced standing.

Programme aim(s)

This programme aims to provide you with the necessary technical and higher-level reasoning skills required to become a computer scientist or IT professional; with multiple opportunities for you to learn practical skills and conceptual techniques from cloud computing to artificial intelligence and machine learning. This equips you with the technical knowledge, analytical abilities and organisational methods to propose, research, develop and complete your own self-directed research project.

Programme learning outcomes

Upon successful completion of the programme students will be able to demonstrate:

Level 7

- 7.1 Evaluate computer science concepts and principles and their application to the effective design, implementation, and usability of computer-based systems.
- 7.2 Apply the findings of advanced scholarship and/or contemporary research and practice to the solution of computer science problems
- 7.3 Critically evaluate computer science problems, including those at the forefront of field.
- 7.4 Demonstrate operation within applicable professional, legal, social and ethical frameworks.
- 7.5 Demonstrate originality and creativity in the solution of computer science problems.
- 7.6 Recommend, with detailed justification, the appropriate computer science principles and practices to apply to a significant domain-specific activity.
- 7.7 Apply standards, quality processes and engineering principles to the solution of computer science problems.

Programme structure

Full time (1 year)

| Code | Level | Year | Term | Title | Credits | Module status | |
|----------|-------|------|-------|----------------------------------|---------|--------------------------------|---|
| | | | | | | Compulsory (C) or optional (O) | non-compensatable (NC) or compensatable (X) |
| COM7032M | 7 | 1 | 1 | Artificial Intelligence Concepts | 15 | C | X |
| COM7033M | 7 | 1 | 1 | Cloud Computing | 15 | C | X |
| COM7034M | 7 | 1 | 1 | User Centred Design | 15 | C | X |
| COM7039M | 7 | 1 | 1 | Machine Learning | 15 | C | X |
| COM7036M | 7 | 1 | 2 | Big Data | 15 | C | X |
| COM7037M | 7 | 1 | 2 | Internet of Things | 15 | C | X |
| COM7038M | 7 | 1 | 2 | Cyber Security | 15 | C | X |
| COM7035M | 7 | 1 | 2 | Agile Software Development | 15 | C | X |
| COM7040M | 7 | 1 | 1 - 3 | Dissertation | 60 | C | NC |

Full time with year in industry (2 years)

| Code | Level | Year | Term | Title | Credits | Module status | |
|----------|-------|-------|-------|----------------------------------|---------|--------------------------------|---|
| | | | | | | Compulsory (C) or optional (O) | non-compensatable (NC) or compensatable (X) |
| COM7032M | 7 | 1 | 1 | Artificial Intelligence Concepts | 15 | C | X |
| COM7033M | 7 | 1 | 1 | Cloud Computing | 15 | C | X |
| COM7034M | 7 | 1 | 1 | User Centred Design | 15 | C | X |
| COM7039M | 7 | 1 | 1 | Machine Learning | 15 | C | X |
| COM7036M | 7 | 1 | 2 | Big Data | 15 | C | X |
| COM7037M | 7 | 1 | 2 | Internet of Things | 15 | C | X |
| COM7038M | 7 | 1 | 2 | Cyber Security | 15 | C | X |
| COM7035M | 7 | 1 | 2 | Agile Software Development | 15 | C | X |
| COM7042M | 7 | 1 - 2 | 1 – 3 | Dissertation [Year in Industry] | 60 | C | NC |

Any modules that must be passed for progression or award are indicated in the table above as non-compensatable. A non-compensatable module is one that must be passed at the relevant level (with a mark of 50) in order to progress.

Learning, teaching and assessment

Teaching and Learning strategies ensure that knowledge, understanding, and skills in foundational issues, major technologies and subdisciplines are achieved through a range of appropriate, constructively aligned, learning and teaching styles.

The programme delivery utilises a range of approaches including:

- A series of face-to-face lectures, workshops and practical sessions;
- Independent, self-directed research and study;
- Reflection of work-based practice to re-enforce critical thinking and professional skills;
- Problem-based learning approach as a way of addressing the complexity of situations in the real world;
- Individual supervision to develop reflexive and reflective computer science experts in professional settings.

Assessment within the programme is 100% course work and utilises a variety of portfolio assessments, research reports, articles, and software programmes with a real-world emphasis.

Progression and graduation requirements

The University's [general regulations for](#) postgraduate awards apply to this programme.

Any modules that must be passed for progression or award are indicated in the Programme Structure section as non-compensatable.

Internal and external reference points

This programme specification was formulated with reference to:

- [University mission and values](#)
- [University 2026 Strategy](#)
- [QAA subject benchmark statements](#)
- [Frameworks for Higher Education Qualifications](#)

Date written / revised: March 2021

Programme originally approved: January 2020.