

THE UNIVERSITY OF STRATHCLYDE

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MSc in Software Development

Course Director
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Liaskos**

Course aim:

- Conversion course.
- Specifically designed for graduates **without a** computing science background.
- Prepare you for a professional career in software development/programming.

Start date: September

Study mode and duration: MSc conversion degree, 12 months full-time

Find out what our students think of the course:

<https://www.strath.ac.uk/courses/postgraduatetaught/softwaredevelopment/#whythiscourse>

Overview of course content (1)

- CS995 – Introduction to Programming Principles
 - Python (from an object-oriented perspective)
 - Semester 1/weeks 1-5
 - 20 credits
- CS994 – Object Oriented Programming
 - Java
 - Semester 1/weeks 6-11
 - 20 credits

Core classes of this course, in the sense that:

These classes will help you develop your programming skills

Overview of course content (2)

- CS808 – Computer Security Fundamentals
 - Semester 1/weeks 1-11
 - 10 credits
- CS978 – Legal, Ethical And Professional Issues For The Information Society
 - Semester 1/Online
 - 10 credits
- CS990 – Database Fundamentals
 - Semester 2/weeks 1-5
 - 10 credits

Overview of course content (3)

- CS992 – Database Development
 - Semester 2/weeks 6-11
 - 10 credits
- CS991 – Mobile Application Development
 - Semester 2/weeks 1-11
 - 20 credits
- CS993 – Software Engineering
 - Semester 2/weeks 1-11
 - 20 credits

Overview of course content (4)

Dissertation – Semester 3

- Individual project on an approved topic.
 - Can be self-suggested in the context of a high-level project description.
- Project type: Application
 - Focus is on development and the software engineering process.
 - Covers the full lifecycle of software development.
- Dissertation: 8,000 words (+/- 10%).
 - Topics posted at the start of Semester 2.
 - Supervision: 2-hour long weekly drop-in lab sessions.
 - Start: end of May.
 - Submission: mid-August.

Teaching approach

The best way to learn programming is to start coding right away.

We achieve this by employing a number of techniques:

- Flipped classroom
- Guest lectures from industry (e.g. JP Morgan, Pulsion Technologies), including requirements gathering
- Blended learning
- Rapid prototyping
- Pair-programming
- Manual walkthroughs

Accreditation & Careers

- Initial partial accreditation by the British Computer Society.
- Majority of our students offered a job before (or right after) graduation.
- A few examples:
 - JP Morgan: developers and software engineers
 - Pulsion Technology: front-end developers
 - Alten Group (France): machine learning
 - 2 students (from the 2018-19 cohort) offered a PhD
 - 1 student (from the 2018-19 cohort) considering to apply for a PhD

Conclusions

- Programming classes will help you:
 - Learn different programming languages.
 - Gradually develop the core coding skills required for this course.
 - Evaluate software developed by other programmers.
 - Evaluate software developed by you/your team.
- Software Engineering and other classes will help you:
 - Become familiar with the various phases of the software development lifecycle.
 - Learn techniques & tools that support each of these phases.
 - Develop programs in diverse problem domains.
- Dissertation will help you:
 - Utilise the aforementioned skills to solve a real-world problem.
 - Demonstrate your creativity and imagination by working on a project topic of your preference.

THE AWARDS 2019

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Times Higher Education Widening Participation Initiative of the Year 2019
The University of Strathclyde is rated a QS 5-star institution

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