Master of Science in Java Programming

The aim of the course is to allow students to deal with the entire software development cycle,

from the analysis of customer needs to the structuring of the database, from the design of the

user interface to the construction of the back end using Object Oriented programming model and

the Java language.

Career:

* Java Programmer
* Software Engineer
* IT/Java Programme Manager

Entry Requirements

Applicants are required to have a:

* Minimum Level 6 qualification or equivalent in either Computer Science, Electrical or

Electronic Engineering, Mathematics, Physics, related disciplines with demonstrable

exposure to programming and mathematics or other alternative subjects related to data

analysis, data science or informatics, or a recognized equivalent international

qualification.

* IELTS 6.0 or equivalent

Methodology

The programme comprises an online approach promoting the building of a community of

practice via peer-to-peer learning which is asynchronous. Students have the freedom and

flexibility to access the course at a time which is most convenient to them.

Modules:

* Basic Java  
  The module explores the fundamentals of Java programming and Object Oriented programming  
  The Basic Java module provides students with a solid foundation in Java programming, catering to both beginners and those with limited prior experience in coding. Throughout this module, students will embark on a journey to master the essential concepts of Java, ultimately enabling them to critically analyze code, understand object-oriented programming principles, and construct basic Java applications.  
  12 ECTS
* Advanced Java  
  The module presents the techniques for good Java programming, and the Java Framework API

The Advanced Java module is designed to empower students with a deeper understanding of the Java programming language, equipping them with the expertise needed to tackle complex software projects and leverage Java's rich ecosystem effectively. Throughout this module, students will master advanced Java concepts and frameworks, enabling them to critically analyze and apply their knowledge to real-world software development scenarios.  
12 ECTS

* DBMS and SQL  
  The module defines the techniques for the data persistence and for data access via the Structured Query Language  
  The DBMS and SQL module offers a comprehensive exploration of Database Management Systems (DBMS) and Structured Query Language (SQL). Designed for students pursuing a deeper understanding of data management and database design, this module equips them with the skills required to critically analyze data relations, plan and implement databases on a Relational Database Management System (RDBMS), and employ advanced SQL commands effectively.  
  12 ECTS
* Access to Databases from Applications  
  The module defines the techniques remote accesso to persistent data from a Java application  
  The Access to Databases from Applications module offers students a comprehensive exploration of the critical intersection between application development and database management. This module equips students with the skills and knowledge required to effectively access, manipulate, and manage data stored in Relational Database Management Systems (RDBMS) from Java applications. Through this course, students will gain a deep understanding of access control, access control systems, and the use of the Java Persistence API (JPA) framework.

12 ECTS

* Web Applications  
  Module covers implementation of the full software web application project, back-end, front-end and management of third-party systems used for data persistence  
  The Web Applications module provides students with an in-depth exploration of the technologies and principles behind modern web development. Students will develop a profound understanding of web application architecture, design patterns, and the intricacies of web protocols. This module equips them with the skills and critical knowledge necessary to design, develop, and deploy web-based software systems, with a specific focus on the J2EE framework and the Java Spring Framework.  
  12 ECTS
* Research Methods  
   6 ECTS
* Dissertation   
  The dissertation is a compulsory element of Master of Science in Java Programming.

Dissertation is based on a major piece of work that involves applying material encountered in the taught component of the degree, and extending that knowledge with the student's contribution, under the guidance of a supervisor. This component of the Master’s degree provides an opportunity for students to pursue a single topic in depth and to demonstrate evidence of research ability at a Masters level. The topic is typically a current problem in the broad area of their MSc programme.

The dissertation usually involves experimental or theoretical research, or a substantial literature survey on a specific topic.  
24 ECTS

Total 90 ECTS

Programme can be delivered full and/or part time depending on the availability of students.

Part-time: 32 Months

Semester 1 Module 1, 2

Semester 2 Module 3, 4

Semester 3 Module 5

Semester 4 Module 6 + Dissertation kick off

Semester 5 complete dissertation

Full- Time: 18 Months

Semester 1 Module 1, 2, 3, 4

Semester 2 Module 5, 6 + Dissertation kick off

Semester 3 complete dissertation

Price: €3,000

eGO Education and its degree programmes are fully accredited by the Malta Further and Higher Education Authority (MFHEA). With this accreditation your degree programmes can be recognised in many countries. This allows you to further your studies in different countries and you can have your skills and competences acknowledged within a wider geographical labour market.

The participation of Malta in the Qualifications Framework of the European Higher Education Area implies that your degree can be recognised in the 49 member states of the European Higher Education Area (EHEA) including all members of the European Union, the European Economic Area plus eight Eurasian countries.

Similarly, Malta´s participation in the Transnational Qualifications Framework allows your degree to be recognised in 31 member states of the Commonwealth in Africa, Asia, Caribbean, Europe, and the Pacific regions.

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