

## COURSE DETAIL

### SEMI-STRUCTURED DATA AND ADVANCED DATA MODELING

**Country**

United Kingdom - England

**Host Institution**

University of London, Queen Mary

**Program(s)**

University of London, Queen Mary

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Computer Science

**UCEAP Course Number**

144

**UCEAP Course Suffix****UCEAP Official Title**

SEMI-STRUCTURED DATA AND ADVANCED DATA MODELING

**UCEAP Transcript Title**

SEMI-STRUCTURD DATA

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

In this course, student learn to process XML (with XSLT and Java), to model data with XML (XML native, RDF), and to query XML data (XQuery). The course teaches many concepts of data modelling and knowledge representation that are beyond the syntactic issues of XML or RDF. The knowledge students acquire in the course is fundamental to the many data design and data analytics tasks occurring in todays IT and business landscapes. The second part of the course is dedicates to advanced DB concepts including active databases, mobile databases, spatial and temporal databases, triggers, performance tuning, distributed databases, and indexing and query optimization. The third part of the course covers the modern, agile world of data processing: NoSQL. It is about the processing of semi-structured data, transforming data streams into formats (triplets, JSON) to be processed by new DB systems (e.g. MongoDB, CouchDB).

### Language(s) of Instruction

English

### Host Institution Course Number

ECS789P

### Host Institution Course Title

SEMI-STRUCTURED DATA AND ADVANCED DATA MODELING

### Host Institution Campus

Queen Mary

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

Electronic Engineering and Computer Science

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