Software Development

Module Code: COS7009-B
Academic Year: 2018-19
Credit Rating: 20
School: Department of Computer Science
Subject Area: Computer Science
FHEQ Level: FHEQ Level 7 (Masters)

Pre-requisites:
Co-requisites:

Contact Hours

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Lectures</td>
<td>12</td>
</tr>
<tr>
<td>Laboratory</td>
<td>24</td>
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<tr>
<td>Directed Study</td>
<td>164</td>
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</table>

Availability Periods

<table>
<thead>
<tr>
<th>Occurrence</th>
<th>Location/Period</th>
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<tbody>
<tr>
<td>BDA</td>
<td>University of Bradford / Semester 1 (Sep - Jan)</td>
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Module Aims

The aim of this module is to introduce basic programming skills through a modern object-oriented programming language, design methods and tools.

Outline Syllabus

1. Object-oriented programming.
2. Object-oriented design method.
3. Modern operating system and its tools.
4. Programming constructs, data and control structures.
5. Advanced topics in programming.
6. Testing and debugging programs.
Module Learning Outcomes

On successful completion of this module, students will be able to...

1. demonstrate an advanced and systematic knowledge of design and development through testing of software applications using object oriented principle.

2. analyse and effectively use integrated development environment.

3. apply modern paradigms to software development transferring theoretical concepts to practical applications.

4. solve complex software development problems both systematically and creatively.

Learning, Teaching and Assessment Strategy

Programme delivered in a series of lectures, supported by supervised laboratory work. Module assessment is comprised of two classroom tests to test skills, practical understanding and theoretical concepts on: test 1 (Object-oriented concepts and applications. Operating Systems. Basic Algorithms) and test 2 (Object-oriented applications, Object-oriented design and Object-oriented programming in depth). The supplementary assessment follows a full classroom test model to address deficiencies encountered at the first attempt.

Mode of Assessment

<table>
<thead>
<tr>
<th>Type</th>
<th>Method</th>
<th>Description</th>
<th>Length</th>
<th>Weighting</th>
<th>Final Assess'</th>
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<tr>
<td>Summative</td>
<td>Classroom test</td>
<td>One phased laboratory test</td>
<td>2 hours</td>
<td>50%</td>
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<tr>
<td>Summative</td>
<td>Classroom test</td>
<td>One phased laboratory test</td>
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<td>Referral</td>
<td>Classroom test</td>
<td>Supplementary assessment: One phased laboratory test</td>
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Legacy Code (if applicable)

CM-1003D

Reading List

To view Reading List, please go to rebus:list.