COURSE DETAILS
Course Code: B37XP
Full Course Title: Digital Logic (Ocean U)
SCQF Level: 7
SCAF Credits: 15
Available as Elective: No

DELIVERY LEVEL
| Undergraduate: | Yes | Postgraduate Taught: | No | Postgraduate Research: | No |

Additional Information:
<p>Ocean U equivalent course for HWU B38DB</p>

COURSE AIMS
To introduce the basic theory and basic principles of digital logic

LEARNING OUTCOMES – SUBJECT MASTERY
Understanding and using logic functions

Ability to analyze and design combinational circuit

Ability to analyze and design sequential circuit

Understanding common flip-flop feature expression, state transition table and stimulus table

LEARNING OUTCOMES – PERSONAL ABILITIES
Ability to apply mathematics, natural sciences, engineering fundamentals, and expertise to solve problems in computer software and hardware systems.

Ability to analyze computer complex engineering problems through literature research

Skills designing combinational circuits and sequential circuits based on scientific principle

Ability to cooperate and innovate

Ability to analyze computer complex engineering problems through literature research

SYLLABUS
Theorems of logic functions and logic algebra

Common formulas and simplification of logic functions

Logic gate, analytical method of combinational circuit

Logic design of combinational circuit, logic function transformation

Flip-flop, sequential circuit design

Method of constructing the original state table, state encoding

Programmable logic devices

COURSE RELATIONSHIPS

N/A

LOCATION AND ASSESSMENT METHODS

<table>
<thead>
<tr>
<th>Edi</th>
<th>SBC</th>
<th>Ork</th>
<th>Dub</th>
<th>Malay</th>
<th>IDL</th>
<th>COLL</th>
<th>ALP</th>
<th>OTH</th>
<th>Method</th>
<th>Weight</th>
<th>Exam Mins</th>
<th>Type</th>
<th>Diet</th>
<th>Synoptic Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Examination</td>
<td>70</td>
<td>100</td>
<td>Assessment</td>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Coursework</td>
<td>10</td>
<td>100</td>
<td>Assessment</td>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Practical</td>
<td>20</td>
<td>100</td>
<td>Assessment</td>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Examination</td>
<td>100</td>
<td>100</td>
<td>Reassessment</td>
<td>Semester 3</td>
<td></td>
</tr>
</tbody>
</table>