Level 3 Cloud Based Systems and Services

Performance points for 2019

Will be on UCAS Tariff Table from May 2018 onwards.

For Certificate: 3 mandatory units below and 2 optional, for example Cisco CyberSecurity Essentials and Networking Essentials

For Diploma: 3 mandatory units below and 5 optional, for example Cisco CCNA 1-4, Cisco CCNA Security

Please note: although the units are "optional", they are actually mandatory as they are required for Guided Learning Hours. They are optional as there is a choice of many from which to select the required number.

Level 3

Level 3, Unit 40 - Cloud Based Services and Applications (5 credits)

1. Select, analyse and connect cloud based services and their associated applications to meet needs
   1.1 Describe the connectivity needed for cloud based services to work [5]
   1.2 Analyse the connectivity needed to make cloud based services productive and efficient [8]

2. Install and configure accounts and manage them to meet needs and be in line with costs and requirements
   2.1 Analyse the requirements for account management [6]
   2.2 Assess the needs of account management and recommend procedures and processes for optimal use [7]

3. Check and test the systems in terms of functionality and interoperability and that they meet needs and expectations
   3.1 Analyse system needs based on effectiveness and efficiency [7]
   3.2 Document and describe system needs to match outcomes [10]
### Level 3, Unit 41 - Cloud Based Systems and Security (5 credits)

<table>
<thead>
<tr>
<th>Task Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Describe and compare the main hypervisors used to deliver cloud computing</td>
</tr>
<tr>
<td>2.1</td>
<td>Evaluate the key hardware and software required for big data</td>
</tr>
<tr>
<td>3.1</td>
<td>Analyse and research the main threats to cloud based systems</td>
</tr>
</tbody>
</table>

1. **Assess and understand cloud based systems and the required security to make them effective**
   - **1.1 Describe and compare the main hypervisors used to deliver cloud computing**

2. **Analyse and configure systems for effective and efficient data management and make recommendations**
   - **2.1 Evaluate the key hardware and software required for big data**

3. **Investigate and understand security threats and legal issues surrounding cloud based systems**
   - **3.1 Analyse and research the main threats to cloud based systems**

---

1. **Critically assess the needs of different devices needed to connect and use the cloud, including any limitations they might have**
2. **Verify account management procedures are fit for purpose**
3. **Describe and explain different file types relating to expected needs and outcomes**
4. **Research and recommend applications for cloud based services dependent on needs**
5. **Evaluate costs associated with cloud based access against requirements**
6. **Describe and explain file extensions in terms of strengths and weaknesses**
7. **Describe and evaluate the limitations on connectivity based on speed and expected outcomes**
8. **Research and recommend applications for cloud based services dependent on needs**
9. **Verify account management procedures are fit for purpose**
10. **Describe and explain different file types relating to expected needs and outcomes**
11. **Describe and evaluate the limitations on connectivity based on speed and expected outcomes**
12. **Describe and explain file extensions in terms of strengths and weaknesses**
13. **Describe and evaluate the limitations on connectivity based on speed and expected outcomes**
14. **Research and recommend applications for cloud based services dependent on needs**
15. **Evaluate costs associated with cloud based access against requirements**
16. **Describe and explain file extensions in terms of strengths and weaknesses**
17. **Describe and evaluate the limitations on connectivity based on speed and expected outcomes**
18. **Describe and recommend account management packages based on value for money and suitability**
19. **Present research and match findings to the requirements of different needs and expectations**
20. **Use/evaluate different tools/control panels/portals to manage cloud products**
21. **Compare several different offerings and recommend the best one based on cost, services and account flexibility**
22. **Use account management techniques in line with local guidelines and legal restrictions**
23. **Evaluate the key hardware and software required for big data**
24. **Describe and recommend account management packages based on value for money and suitability**
25. **Present research and match findings to the requirements of different needs and expectations**
26. **Use account management techniques in line with local guidelines and legal restrictions**
Level 3 Cloud Based Systems and Services

1.2 Describe the main systems and hardware used for cloud based use and explain their main features

2.2 Analyse the data requirements of a range of situations

3.2 Describe the threats to cloud based systems and give examples of their functionality

1.3 Analyse the features of the main cloud based systems and services

2.3 Describe how the data needs of different companies and usage will affect their data solutions

3.3 Describe and recommend ways to minimise threats to cloud based systems

1.4 Assess the strengths of the cloud based services on offer and give clear examples to illustrate my conclusions

2.4 Describe the different types of data management system available

3.4 Describe the laws which affect cloud based services

1.5 Assess the weaknesses of the cloud based services on offer and indicate ways to minimise the impact of these problems

2.5 Assess the strengths of data management systems and recommend the best in terms of effectiveness and efficiency

3.5 Describe the licenses and their impact on cloud based services

1.6 Evaluate cloud based services and systems against desktop and dedicated server based systems

2.6 Evaluate data management and attempt to predict future trends

3.6 Evaluate the impact of laws and licenses on the development of cloud based services

2.7 Analyse the legal implications of cloud based data storage and retrieval

Level 3, Unit 42 - Undertaking a Real World Project (5 credits)

1. Research and plan a real-world project to apply my theoretical knowledge in a

2. Analyse the service and security requirements for the project to be a

3. Describe the application and data requirements needed in line with the client

4. Produce a project based on my research and understanding to meet the

5. Recommend services and application to meet client needs
## Level 3 Cloud Based Systems and Services

A practical way to ensure success needs and expectations are met, and to cope with scaling and flexibility, is to state the aims and objectives of the project, identify service requirements for the project, identify a range of hardware and software solutions, produce a working system to satisfy the client's needs and objectives set out in the planning process, evaluate the solution with respect to the client budget, show a real need for the project undertaken, identify the security requirements of the client, explain the limitations and cost implications of each solution to the client, produce an outline plan for the project, describe the back-up and disaster recovery processes to ensure system stability, evaluate the solution with respect to local conventions and legal requirements, define the client base, produce an outline plan for the project, describe the back-up and disaster recovery processes to ensure system stability, evaluate the solution with respect to local conventions and legal requirements, provide a list of alternative solutions, and evaluate the alternatives.

### Links to ITQ units

<table>
<thead>
<tr>
<th>Entry Level</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry Level 1, Unit 1 - Improving Productivity Using IT (1 credit) [60]</td>
<td>Level 1, Unit 1 - Improving Productivity Using IT (3 credits) [61]</td>
<td>Level 2, Unit 1 - Improving Productivity Using IT (4 credits) [62]</td>
<td>Level 3, Unit 1 - Improving Productivity Using IT (5 credits) [63]</td>
</tr>
<tr>
<td>Entry Level 2, Unit 1 - Improving Productivity Using IT (2 credits)</td>
<td>Level 1, Unit 2 - Website Software (3 credits)</td>
<td>Level 2, Unit 2 - Website Software (4 credits)</td>
<td>Level 3, Unit 2 - Website Software (5 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 2 - Using ICT to Select and Exchange Information (2 credits)</td>
<td>Level 1, Unit 3 - Using Collaborative Technologies (3 credits)</td>
<td>Level 2, Unit 3 - Using Collaborative Technologies (4 credits)</td>
<td>Level 3, Unit 3 - Using Collaborative Technologies (6 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 3 - Online Basics (2 credits)</td>
<td>Level 1, Unit 4 - IT Security for Users (1 credit)</td>
<td>Level 2, Unit 4 - IT Security for Users (2 credits)</td>
<td>Level 3, Unit 4 - IT Security for Users (3 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 4 - Desktop Publishing Software (2 credits)</td>
<td>Level 1, Unit 5 - Spreadsheet Software (3 credits)</td>
<td>Level 2, Unit 5 - Spreadsheet Software (4 credits)</td>
<td>Level 3, Unit 5 - Spreadsheet Software (6 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 5 - Using ICT: Safe Working Practices (1 credit)</td>
<td>Level 1, Unit 6 - Specialist Software (2 credits)</td>
<td>Level 2, Unit 6 - Specialist Software (3 credits)</td>
<td>Level 3, Unit 6 - Specialist Software (4 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 6 - Using ICT in the Workplace (3 credits)</td>
<td>Level 1, Unit 7 - Word Processing (3 credits)</td>
<td>Level 2, Unit 7 - Word processing (4 credits)</td>
<td>Level 3, Unit 7 - Word Processing Software (6 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 7 - Imaging software (2 credits)</td>
<td>Level 1, Unit 8 - Using the Internet (3 credits)</td>
<td>Level 2, Unit 8 - Using the internet (4 credits)</td>
<td>Level 3, Unit 8 - Using the Internet (5 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 8 - Using ICT Equipment in a Work Place (2 credits)</td>
<td>Level 1, Unit 9 - Drawing and planning (2 credits)</td>
<td>Level 2, Unit 9 - Drawing and planning (3 credits)</td>
<td>Level 3, Unit 9 - Drawing and Planning Software (4 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 9 - Using Word Processing Software (2 credits)</td>
<td>Level 1, Unit 10 - Presentation Software (3 credits)</td>
<td>Level 2, Unit 10 - Presentation software (4 credits)</td>
<td>Level 3, Unit 10 - Presentation Software (6 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 10 - ICT for Employment (1 credit)</td>
<td>Level 1, Unit 11 - Database Software (3 credits)</td>
<td>Level 2, Unit 11 - Database software (4 credits)</td>
<td>Level 3, Unit 11 - Database Software (6 credits)</td>
</tr>
<tr>
<td>Entry Level 2, Unit 11 - Audio and Video Software (2 credits)</td>
<td>Level 1, Unit 12 - Desktop Publishing Software (3 credits)</td>
<td>Level 2, Unit 12 - Desktop Publishing Software (4 credits)</td>
<td>Level 3, Unit 12 - Desktop Publishing Software (5 credits)</td>
</tr>
</tbody>
</table>
Level 3 Cloud Based Systems and Services

Entry Level 2, Unit 12 - Presentation Software (2 credits) [108]

Level 1, Unit 13 - Using Email (2 credits) [109]
Level 2, Unit 13 - Using Email (3 credits) [110]
Level 3, Unit 13 - Using Email (3 credits) [111]

Entry Level 3, Unit 1 - Improving Productivity Using IT (3 credits) [112]

Level 1, Unit 14 - Audio Software (2 credits) [113]
Level 2, Unit 14 - Audio Software (3 credits) [114]
Level 3, Unit 14 - Audio Software (4 credits) [115]

Entry Level 2, Unit 2 - Online Basics (1 credit) [116]

Level 1, Unit 15 - Imaging Software (3 credits) [117]
Level 2, Unit 15 - Imaging Software (4 credits) [118]
Level 3, Unit 15 - Imaging Software (5 credits) [119]

Entry Level 3, Unit 3 - Desktop Publishing Software (2 credits) [120]

Level 1, Unit 16 - IT Communication Fundamentals (2 credits) [121]
Level 2, Unit 16 - IT Communication Fundamentals (2 credits) [122]
Level 3, Unit 17 - Video Software (4 credits) [123]

Entry Level 4 - Displaying Information Using ICT (3 credits) [124]

Level 1, Unit 17 - Video Software (2 credits) [125]
Level 2, Unit 17 - Video Software (3 credits) [126]
Level 3, Unit 23 - Multimedia Software (6 credits) [127]

Entry Level 3, Unit 5 - Using ICT to Find Information (3 credits) [128]

Level 1, Unit 18 - IT Software Fundamentals (3 credits) [129]
Level 2, Unit 18 - IT Software Fundamentals (3 credits) [130]
Level 3, Unit 24 - Additive Manufacture (6 credits) [131]

Entry Level 6 - Communicating Information Using ICT (3 credits) [132]

Level 1, Unit 19 - IT User Fundamentals (3 credits) [133]
Level 2, Unit 19 - IT User Fundamentals (3 credits) [134]
Level 3, Unit 27 - Design Software (5 credits) [135]

Entry Level 7 - Producing Charts Using ICT (3 credits) [136]

Level 1, Unit 20 - Using Mobile IT Devices (2 credits) [137]
Level 2, Unit 20 - Using Mobile IT Devices (2 credits) [138]
Level 3, Unit 28 - Optimise IT System Performance (5 credits) [139]

Entry Level 8 - IT Security for users (1 credit) [140]

Level 1, Unit 21 - Data Management Software (2 credits) [141]
Level 2, Unit 21 - Data Management Software (3 credits) [142]
Level 3, Unit 29 - Set Up an IT System (5 credits) [143]

Entry Level 10 - Presentation software (2 credits) [144]

Level 1, Unit 22 - Understanding the social and environmental impact of architecture and construction (3 credits) [145]
Level 2, Unit 22 - Understanding the social and environmental impact of architecture and construction (4 credits) [146]
Level 3, Unit 32 - Computerised Accounting Software (5 credits) [147]

Entry Level 15 - Imaging Software (2 credits) [148]

Level 1, Unit 23 - Multimedia Software (3 credits) [149]
Level 2, Unit 23 - Multimedia Software (4 credits) [150]
Level 3, Unit 33 - Application Development Using Project [151]
<table>
<thead>
<tr>
<th>Level 3 Cloud Based Systems and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Management Methods (6 credits)</strong> [151]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 37 - Internet of Things (6 credits)</strong> [155]</td>
</tr>
<tr>
<td><strong>Entry Level 3, Unit 20 - Introduction to Using mobile IT devices (2 credits)</strong> [152]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 24 - Additive Manufacture (3 credits)</strong> [153]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 24 - Additive Manufacture (3 credits)</strong> [154]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 37 - Internet of Things (6 credits)</strong> [155]</td>
</tr>
<tr>
<td><strong>Entry Level 3, Unit 25 - Developing Computer Games and Puzzles (3 credits)</strong> [156]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 25 - Developing Computer Games and Puzzles (4 credits)</strong> [157]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 25 - Developing Computer Games and Puzzles (4 credits)</strong> [158]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 40 - Cloud Based Services and Applications (5 credits)</strong> [159]</td>
</tr>
<tr>
<td><strong>Entry Level 3, Unit 26 - Computer Games Development (3 credits)</strong> [160]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 26 - Computer Games Development (3 credits)</strong> [161]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 26 - Computer Games Development (4 credits)</strong> [162]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 41 - Cloud Based Systems and Security (5 credits)</strong> [163]</td>
</tr>
<tr>
<td><strong>Entry Level 3, Unit 28 - Personal information management software (1 credit)</strong> [164]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 27 - Design Software (3 credits)</strong> [165]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 27 - Design Software (4 credits)</strong> [166]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 42 - Undertaking a RealWorld Project (5 credits)</strong> [167]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 28 - Optimise IT System Performance (2 credits)</strong> [168]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 28 - Optimise IT System Performance (4 credits)</strong> [169]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 44 - Bespoke Software (4 credits)</strong> [170]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 29 - Set Up an IT System (3 credits)</strong> [171]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 29 - Set Up an IT System (4 credits)</strong> [172]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 57 - Networking Fundamentals (5 credits)</strong> [173]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 30 - CAD (3 credits)</strong> [174]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 30 - CAD (3 credits)</strong> [175]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 60 - Cisco CCNA 1 - Introduction to Networks (6 credits)</strong> [176]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 31 - Internet Safety for IT users (3 credits)</strong> [177]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 32 - Computerised Accounting Software (3 credits)</strong> [178]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 61 - Cisco CCNA 2 - Routing and Switching (6 credits)</strong> [179]</td>
</tr>
<tr>
<td><strong>Level 1, Unit 32 - Computerised Accounting Software (2 credits)</strong> [180]</td>
</tr>
<tr>
<td><strong>Level 2, Unit 33 - Application Development Using Project Management Methods (4 credits)</strong> [181]</td>
</tr>
<tr>
<td><strong>Level 3, Unit 62 - Cisco CCNA 3 - Scaling Networks (6 credits)</strong> [182]</td>
</tr>
<tr>
<td>Level 1, Unit 36</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Level 2, Unit 34</td>
</tr>
<tr>
<td>Level 3, Unit 63</td>
</tr>
<tr>
<td>Level 1, Unit 50</td>
</tr>
<tr>
<td>Level 2, Unit 35</td>
</tr>
<tr>
<td>Level 3, Unit 64</td>
</tr>
<tr>
<td>Level 1, Unit 51</td>
</tr>
<tr>
<td>Level 2, Unit 50</td>
</tr>
<tr>
<td>Level 3, Unit 65</td>
</tr>
<tr>
<td>Level 1, Unit 102</td>
</tr>
<tr>
<td>Level 2, Unit 51</td>
</tr>
<tr>
<td>Level 3, Unit 66</td>
</tr>
<tr>
<td>Level 1, Unit 103</td>
</tr>
<tr>
<td>DEL Level 2, Unit 70</td>
</tr>
<tr>
<td>Level 3, Unit 67</td>
</tr>
<tr>
<td>Level 1, Unit 105</td>
</tr>
<tr>
<td>DEL Level 2, Unit 71</td>
</tr>
<tr>
<td>DEL Level 2, Unit 72</td>
</tr>
<tr>
<td>DEL Level 2, Unit 73</td>
</tr>
</tbody>
</table>
| Level 2, Unit 80 | Digital Tools and Best Practice for
Level 3 Cloud Based Systems and Services

Project Management (5 credits) [202]

Level 2, Unit 81 - Digital Safety and Security Policies and Procedures (4 credits) [203]

Level 2, Unit 82 - Digital Editing and Publishing (3 credits) [204]

Level 2, Unit 83 - Digital Design and Graphics (3 credits) [205]

Level 2, Unit 84 - Digital Modelling and Data Management (3 credits) [206]

Level 2, Unit 85 - Virtual Reality and the Development Life Cycle (4 credits) [207]

Source URL: https://theingots.org/community/cloud

Links
[5] https://theingots.org/community/sil3u40x#1.1
[6] https://theingots.org/community/sil3u40x#2.1
[7] https://theingots.org/community/sil3u40x#3.1
[8] https://theingots.org/community/sil3u40x#1.2
[9] https://theingots.org/community/sil3u40x#2.2
[10] https://theingots.org/community/sil3u40x#3.2
[11] https://theingots.org/community/sil3u40x#1.3
[12] https://theingots.org/community/sil3u40x#2.3
[13] https://theingots.org/community/sil3u40x#3.3
Level 3 Cloud Based Systems and Services

[132] https://theingots.org/community/siel3u6
[133] https://theingots.org/community/sil1u19
[134] https://theingots.org/community/sil2u19
[135] https://theingots.org/community/sil3u27
[136] https://theingots.org/community/siel3u7
[137] https://theingots.org/community/sil1u20
[138] https://theingots.org/community/sil2u20
[139] https://theingots.org/community/sil3U28
[140] https://theingots.org/community/siel3u4
[141] https://theingots.org/community/sil1u21
[142] https://theingots.org/community/sil2u21
[143] https://theingots.org/community/sil3u29
[144] https://theingots.org/community/siel3u10
[145] https://theingots.org/community/sil1u22
[146] https://theingots.org/community/sil2u22
[147] https://theingots.org/community/sil3u32
[148] https://theingots.org/community/siel3u15
[149] https://theingots.org/community/sil1u23
[150] https://theingots.org/community/sil2u23
[151] https://theingots.org/community/sil3u33
[152] https://theingots.org/community/siel3u20
[153] https://theingots.org/community/sil1u24
[154] https://theingots.org/community/sil2u24
[155] https://theingots.org/community/sil3u37
[156] https://theingots.org/community/siel3u25
[157] https://theingots.org/community/sil1u25
[158] https://theingots.org/community/sil2u25
[159] https://theingots.org/community/sil3u40
[160] https://theingots.org/community/siel3u26
[161] https://theingots.org/community/sil1u26
[162] https://theingots.org/community/sil2u26
[163] https://theingots.org/community/sil3u41
[164] https://theingots.org/community/siel3u28
[165] https://theingots.org/community/sil1u27
[166] https://theingots.org/community/sil2u27
[167] https://theingots.org/community/sil3u42
[168] https://theingots.org/community/sil1u28
[169] https://theingots.org/community/sil2u28
[170] https://theingots.org/community/sil3u44
[171] https://theingots.org/community/sil1u29
[172] https://theingots.org/community/sil2u29
[173] https://theingots.org/community/sil3u57
[174] https://theingots.org/community/sil1u30
[175] https://theingots.org/community/sil2u30
[176] https://theingots.org/community/sil3u60
[177] https://theingots.org/community/sil1u31
[178] https://theingots.org/community/sil2u32
[179] https://theingots.org/community/sil3u61
[180] https://theingots.org/community/sil1u32
[181] https://theingots.org/community/sil2u33
[182] https://theingots.org/community/sil3u62
[183] https://theingots.org/community/sil1u36
[184] https://theingots.org/community/sil2u34
[185] https://theingots.org/community/sil3u63
[186] https://theingots.org/community/sil1u50
[187] https://theingots.org/community/sil2u35
[188] https://theingots.org/community/sil3u64
[189] https://theingots.org/community/sil1u51
[190] https://theingots.org/community/sil2u50
Level 3 Cloud Based Systems and Services

[191] https://theingots.org/community/sil3u65
[192] https://theingots.org/community/sil1u102
[193] https://theingots.org/community/sil2u51
[194] https://theingots.org/community/sil3u66
[195] https://theingots.org/community/sil1u103
[196] https://theingots.org/community/sil2u70
[197] https://theingots.org/community/sil3u67
[198] https://theingots.org/community/sil1u105
[199] https://theingots.org/community/sil2u71
[200] https://theingots.org/community/sil2u72
[201] https://theingots.org/community/sil2u73
[202] https://theingots.org/community/sil2u80
[203] https://theingots.org/community/sil2u81
[204] https://theingots.org/community/sil2u82
[205] https://theingots.org/community/sil2u83
[206] https://theingots.org/community/sil2u84
[207] https://theingots.org/community/sil2u85