

## Department of Computing

### Proposal to use 10 credit modules for the Certificate in Cloud Infrastructure Technologies.

#### Background:

In response to the Springboard call for courses to re-skill those on the unemployment registrar the Department of Computing proposed creating a special purpose award by combining a number of its existing professional offerings. This was a novel approach to creating opportunities for students to gain a foothold in the IT sector. It also exploited existing skills and material available to the department. The modules also help to map the existing professional certifications to the NFQ in terms of level and credits.

The proposal for the Certificate in Cloud Infrastructure Technologies combines four professional offerings in a coherent manner. The final skill set is very relevant to many employers in the Cork region. The four professional certifications being integrated are:

1. CompTIA Linux+ a foundation course in operating systems
2. CompTIA Network+ a foundation course in networking
3. VCP VMware Virtualisation Certified Professional
4. Storage Management from the EMC Academy

Each of the four is a self-contained entity and currently these (except no 4 above) are each delivered over a single semester. The modules meet the criteria for non-standard size in relation to the number of credits they attract.

The following discussion on criteria applies to each individual module.

#### Integrated Learning:

The student's learning is integrated throughout the module. A mini "case study" is used to develop the key skills and competencies in an incremental manner. As understanding develops aspect of the "case study" can be revised and improved.

#### Synthesis:

The assumption on admission is that the student has a good knowledge of basic computing. This knowledge would include aspects such as basic configurations and devices used in building systems. This prior knowledge must be enhanced and incorporated into the new material to facilitate the student gaining a meaningful set of knowledge and skills.

#### Authenticity:

The "case study" referred to under integrated learning above, addresses this issue. A student is required to build a system and configure it as he/she would have to do for a client. This evolves over a period of weeks and as a student's skill level develops he is able to correct earlier mistakes.

#### Self-Directed

The student must take responsibility for his learning within the practical sessions which forms the bulk of the learning. The work is directed by a lecturer by setting task to be performed and the lecturer is available for consultation as would be appropriate for a fundamental module

Jim O'Dwyer

18/10/2012