New Level 3 INGOT

Platinum INGOT (Level 3 Certificate in ICT Open Systems)

Rationale

There is demand for progression from the existing INGOT qualifications. A Platinum INGOT was always envisaged so that we have coherent progression from Entry Level 1 to Level 3. Aberyswyth University has established a degree in Open Source Computing [1] and thre are already MSc and PhDs in the subject. A level 3 qualification in Open Systems provides a bridge to these HE courses and can be made consistent with the various national qualifications strategies.

Relationship with the QCF

The structure of the Platinum INGOT will support unit progression from the Level 2 Gold INGOT but it will be structurally compatible with the new QCF and where possible ITQ units in the QCF and the NOS.

Unit title	Credit value
Mathematics for ICT professionals	4
Understanding open systems	4
Improving productivity using IT	6
IT user fundamentals	2
Optimising system performance	5
Security for IT users	5
Communication fundamentals	2
Using the Internet	4
Software fundamentals	2
Understanding Enterprise and Business Growth	6
An introduction to object oriented programming with Python	6
Web development standards (HTML and XML)	6

Any of the ITQ units plus understanding Open Systems that comes to 13 of more credits is called TLM Level 3 Award in ICT Open Systems (ITQ)

Any of the ITQ units plus understanding Open Systems that comes to 26 of more credits is called TLM Level 3 Certificate in ICT Open Systems (ITQ)

Any of the ITQ units plus understanding Open Systems that comes to 40 of more credits is called TLM Level 3 Diploma in ICT Open Systems (ITQ)

Each of these to be accredited as additional learning units for the Level 3 Diploma.

Mathematics for ICT professionals [2] based on Level 2 Functional Skills Standards with extensions and contexts relate to the support of IT professionals eg coordinates, screen mappings, matrices for things like graphics rotations, vectors and number systems, Diffie-Hellman key exchange as a basis for encryption in security systems.

Understanding open systems [3], developing the learning in the entry level, level 1 and level 2 INGOT qualifications with applied learning in order to exploit the growing mountain of free and open

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source digital resources and avoiding lock-in to proprietary standards.

Improving productivity using IT mandatory ITQ unit - emphasis on a shift from desktop to open web based systems.

IT user fundamentals - L2 unit covers some of the functional skills standards, emphasis on open standards and systems that can reduce costs and avoid vendor lock-in.

Optimising system performance - Choice of operating systems with a case comparison of Windows, Linux and OSX. File management and the undesirability of mixing program and data files. Software upgrades strategy and maintenance in open and closed systems.

Security for IT users - Risk assessments - the principle that any system is only as strong as its weakest link. Viruses, spyware, spam and the impact on TCO. Passwords and encryption, AUP, security and the law. Security and user inconvenience - the trade-offs.

Communication fundamentals - covers some of the functional skills standards, emphasis on open standards and systems that can reduce costs and avoid vendor lock-in.

Using the Internet - Setting up and using internet connections, a case study comparison of Firefox and Internet explorer.

Software fundamentals - L2 unit that covers functional skills standard. Could be a reworking of the current Gold INGOT unit 2.

Understanding Enterprise and Business Growth - Building on the L1 and L2 INGOT enterprise qualifications with more in-depth study of IT related business models, links to the SFEDI enterprise criteria and participating in small scale enterprise.

An introduction to object oriented programming with Python Introduction to Python using a focused practical task. Includes obtaining and installing Python, where to find tutorials and support through free on-line user groups. Emphasis on good basic programming tecniques.

Web development standards (HTML and XML) - What are HTML and XML, CSS, DTDs and Schemas related to web design and new document formats such as ISO 26300.

Source URL: https://theingots.org/community/L3INGOT#comment-0

Links
[1] http://www.aber.ac.uk/en/undergrad/courses/compsci/open-source-computing/
[2] https://theingots.org/community/maths#GIM
[3] https://theingots.org/community/FOSS

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