ECDL
European Computer Driving Licence

DEVELOPING COURSEWARE
FOR ECDL - ICDL

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1.0 Introduction

The purpose of this document is to outline what The European Computer Driving License Foundation Limited (ECDL-F) expects from courseware vendors seeking approval and to outline how the ECDL-F approves courseware. To this end, it contains the parameters within which courseware should be developed and the steps that must be taken by courseware developers to facilitate timely approval.

Section 2.0, **Courseware Development**, provides direction to courseware vendors on how to go about developing courseware that will receive ECDL approval. It is aimed primarily at developers. In this section, consideration is given to the importance of courseware/syllabus mapping, the positioning of the certification, the relationship between courseware and learning management systems, and courseware accessibility. In addition, the guidelines used during the evaluation process are presented.

2.0 Courseware Development Parameters

2.1 Introduction to Development Parameters

This section aims to provide clear parameters for courseware developers who wish to produce ECDL-approved training. By articulating the parameters that define approved training, the ECDL-F intends to facilitate the development of diverse and innovative products. It is informed by a desire to preserve and promote the integrity of ECDL programme through maintaining a clear distinction between training courseware and ECDL certification tests. It aims to achieve this by offering overall direction but not to be prescriptive about how the training is executed. Furthermore, its intention is to simplify and facilitate the collaborative process of approving courseware, which is dependent on input from both developers and the ECDL-F.

Developing training to support the ECDL certification is an attractive proposition for courseware developers because of the popularity and penetration of ECDL certification programmes. It is also in the interest of the Foundation to ensure that a broad range of instructional materials, focused on ECDL syllabi, is available to prospective ECDL candidates. This document has emerged from a need for the Foundation to provide clear and unambiguous guidelines to courseware developers prior to development. It has been informed by an ongoing dialogue with courseware developers, evaluators, and local licensees. Furthermore, new and evolving approaches to learning, especially in the e-learning field, have highlighted the need for a more comprehensive definition of key considerations regarding the courseware development and evaluation process.

2.2 Training/Syllabus Mapping

2.2.1 Overview
The relevant ECDL syllabus (available from the ECDL-F) should be used as the starting point in courseware development. Effective steps should be taken during development to ensure that the final product covers all syllabus items in their entirety. This is to ensure that the courseware is sufficient to prepare the student for the relevant ECDL certification test.

2.2.2 Information Outside the Syllabus Domain
Additional information not stipulated in the syllabus may be included in training. However, this should be at the relevant technical level (e.g. in ECDL syllabus 4.0,
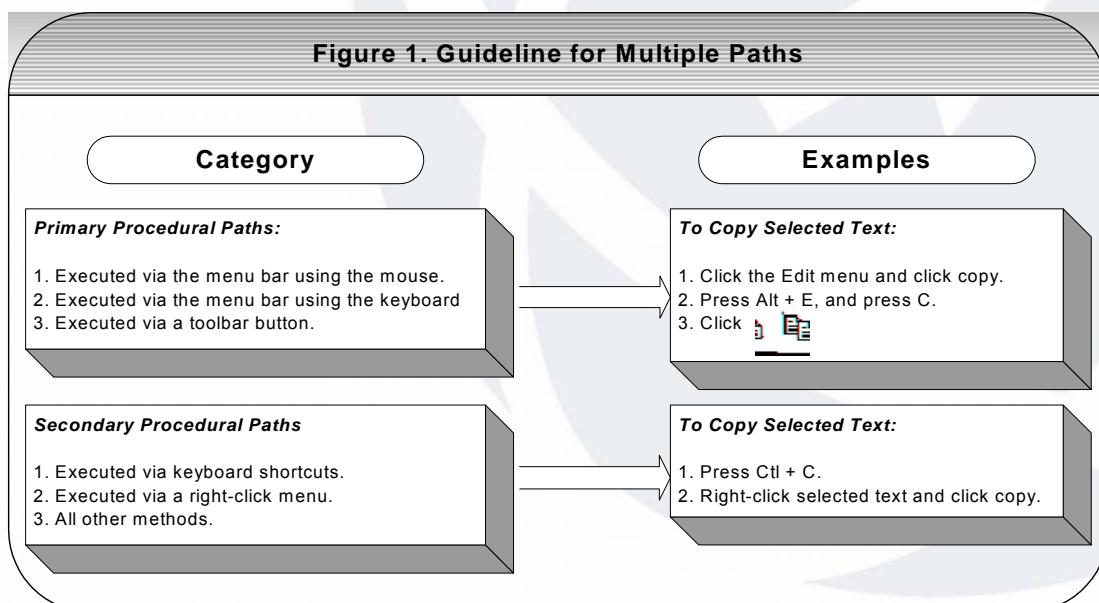
mentioning a USB memory stick might be appropriate in module 2, but discussing SQL server in module 5 would not). Please mark this extra content accordingly.

2.2.3 Multiple Paths for Executing Skills Items

For many skills item, there are numerous ways of successfully achieving a desired outcome. For example, it may be possible to underline selected text in many ways, including the following:

(a) Clicking on the toolbar button.

(b) Pressing control + U.

(c) Clicking the right mouse button, selecting Font, and selecting underline style.

(d) Pressing alt + O, pressing F, and selecting the underline style.

(e) Clicking on the Format menu, clicking Font, and selecting the underline style.

The ECDL-F does not wish to dictate to courseware developers the specific paths that should be used. However, it is important that ECDL Candidates are exposed to a variety of ways to achieve a certain task. Given this, the ECDL-F requires <u>more than one path</u> to be taught in courseware. One path must be <u>demonstrated</u>, while subsequent paths need only be <u>described</u>. Furthermore, there are certain approaches that are more commonly used than others. Figure 1 below, *Guideline for Multiple Paths*, categorises the different paths as primary or secondary. The path demonstrated, where possible, should be one of the options described as primary.

Figure 1. Guideline for Multiple Paths

Category	**Examples**
Primary Procedural Paths: 1. Executed via the menu bar using the mouse. 2. Executed via the menu bar using the keyboard 3. Executed via a toolbar button.	*To Copy Selected Text:* 1. Click the Edit menu and click copy. 2. Press Alt + E, and press C. 3. Click
Secondary Procedural Paths 1. Executed via keyboard shortcuts. 2. Executed via a right-click menu. 3. All other methods.	*To Copy Selected Text:* 1. Press Ctl + C. 2. Right-click selected text and click copy.

If shortcut keys are not included as one of the paths taught, a list of the main shortcut procedures must be presented at some point in the module.

At a minimum, the following shortcuts need to be included in modules 3 to 7:
- (a) Keystroke combination to cut.
- (b) Keystroke combination to copy.
- (c) Keystroke combination to paste.
- (d) Keystroke combination to save.
- (e) Keystroke combination to print.
- (f) Keystroke combination to open.
- (g) Keystroke combination to close.

At a minimum, the following shortcuts need to be included in module 2:
- (a) Keystroke combination to cut.
- (b) Keystroke combination to copy.
- (c) Keystroke combination to paste.
- (d) Keystroke combination to switch between open windows.

2.3 Exercise Items and the Positioning of Certification

2.3.1 Overview
Certification by an ECDL-approved test should be clearly positioned as the step following training. When they are engaging with courseware, Candidates should clearly understand that they are taking training and are not obtaining certification. A central implication of this is that Candidates should not construe that performance in certain tasks that require their input (for example, exercises at the end of a chapter or simulation-based exercise items) or completion of a training programme in itself constitutes certification.

No collaboration arrangements or courseware approval will be considered with any supplier who misrepresents their exercise items as ECDL certification. Courseware developers should, therefore, be sensitive to how Candidates may interpret their training and should take the necessary steps to ensure that the distinction between training and certification is maintained at all times. In addition to this general principle, there are several specific guidelines that must be observed and are validated through the evaluation process. These relate to the role of exercise items, the presentation of results, the use of a disclaimer, the printing of certificates, and the use of the logo.

2.3.2 Exercise Items
The ECDL-F supports the concept of formative assessment in courseware, where the Candidate is presented during the course of instruction with items that give feedback

on learning progress and can also inform and guide subsequent instruction. Exercise items that require or request an input from the Candidate should be positioned as part of the training process. Typically, these items may (a) question the state of knowledge of the Candidate prior to instruction, (b) reinforce elements of the instruction during the learning experience, or (c) verify that the learning has taken place. They should not suggest that successful completion of these items equates to certification.
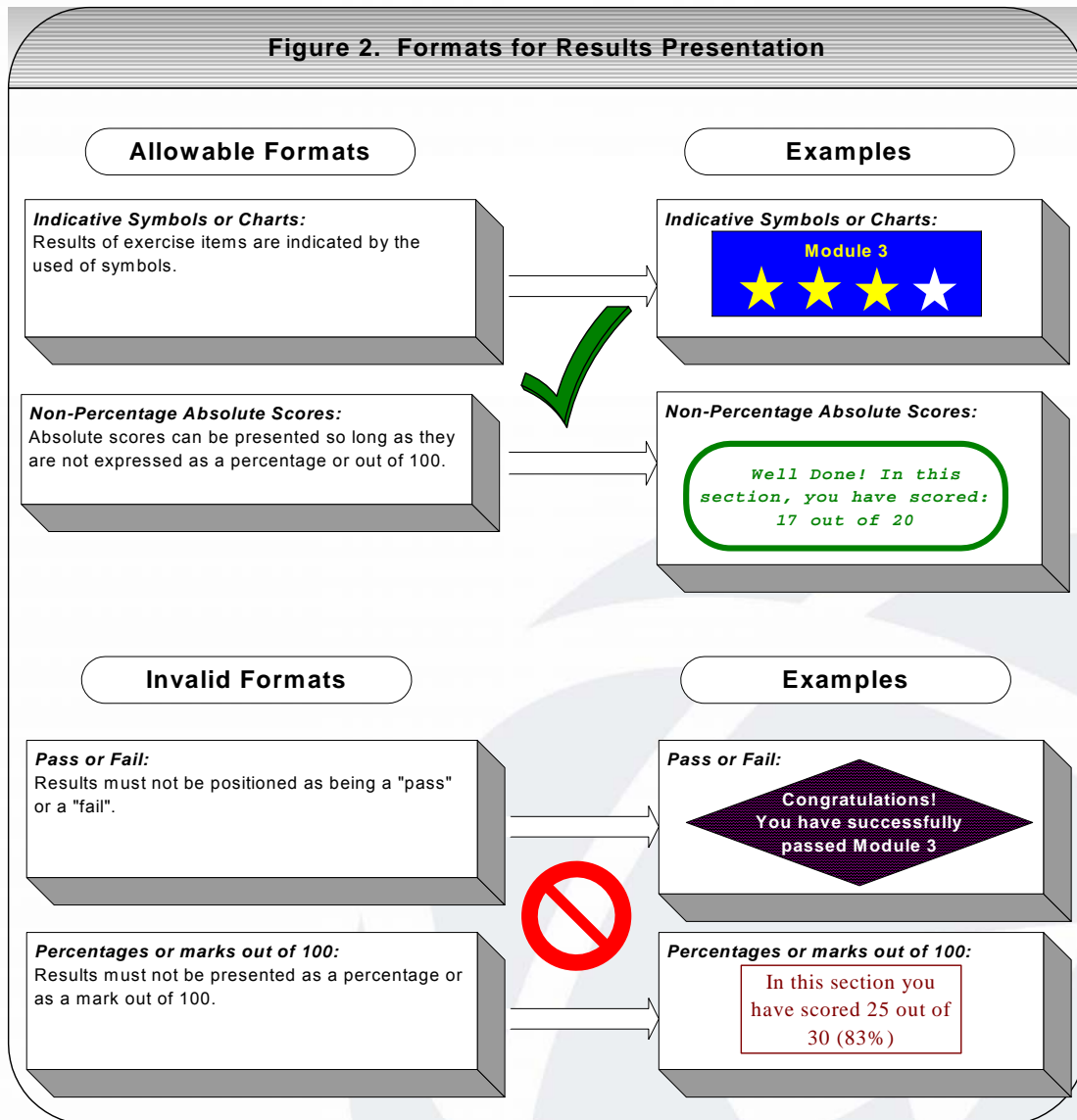
In addition to this general principle, the following specific guidelines must be observed:

    (a) No more than 15 exercise items should be presented together at any one time.

    (b) The terms "test", "assessment", "certification" or "exam" must not be used in the context of exercise items.

Exercise items that are outside the domain of the syllabus or may mislead a Candidate about what an ECDL test may contain should not be used.

2.3.3 Presentation of Results
A Candidate progress screen may be used to indicate to the Candidate how they have performed in a series of exercise items. The presentation of this information is an important part of the formative learning experience. However, the presentation of these results must be done in a manner that does not suggest that they relate to the certification test. Figure 2, Formats for Results Presentation, outlines the allowable and invalid formats and provides examples. It should be noted that the use of the words "pass", "fail", "assessment", "certification", or "test" is not permitted in this context.

Figure 2. Formats for Results Presentation

Allowable Formats

Examples

Indicative Symbols or Charts:
Results of exercise items are indicated by the used of symbols.

Indicative Symbols or Charts:

Module 3

★ ★ ★ ☆

Non-Percentage Absolute Scores:
Absolute scores can be presented so long as they are not expressed as a percentage or out of 100.

Non-Percentage Absolute Scores:

Well Done! In this section, you have scored: 17 out of 20

Invalid Formats

Examples

Pass or Fail:
Results must not be positioned as being a "pass" or a "fail".

Pass or Fail:

Congratulations! You have successfully passed Module 3

Percentages or marks out of 100:
Results must not be presented as a percentage or as a mark out of 100.

Percentages or marks out of 100:

In this section you have scored 25 out of 30 (83%)

2.3.4 Exercise Disclaimer

The following disclaimer must appear prominently in the courseware prior to the presentation of exercise items:

This training, which has been approved by the ECDL Foundation, includes exercise items intended to assist ECDL Candidates in their training for ECDL. These exercises are not ECDL certification tests. For information about authorised ECDL Test Centres in different national territories, please refer to the ECDL Foundation website at www.ecdl.com

2.3.5 The ECDL disclaimer

The ECDL Disclaimer Text will be issued as a separate document

2.3.6 Printing of Certificates

There should be no facility within the training for printing a certificate that details scores or completion.

2.3.7 Trade Marks

The ECDL and ICDL brand marks and the Approved Courseware marks should only be displayed in approved courseware and should not be used inappropriately.

2.4 Approved Courseware and Learning Management Systems

The ECDL-F acknowledges the important role played by learning management systems (LMSs) in administering e-learning, including courseware targeted at ECDL certification. In particular, the Foundation acknowledges that widely agreed specifications for courseware structure, aimed at supporting interoperability between different LMSs, mean that developers may wish to create courseware in a certain way. These specifications may require that a score per learning object be passed to an LMS. This is not incompatible with ECDL requirements concerning scoring as long as the Candidate, as part of the training experience, is not presented with cumulative scores per module. Only an administrator should have access to scoring information, if any, that is accumulated at a module level. ECDL-approved courseware that is run through an LMS must adhere to the same principles and guidelines stipulated in the Exercise Items and the Positioning of Certification section (2.3) of this document.

2.5 Courseware Evaluation Guidelines

2.5.1 Principles for Evaluation

The ECDL Foundation is responsible for approving ECDL courseware material sold or distributed by approved courseware vendors. When evaluating and approving ECDL courseware we are ensuring it maps against the learning objectives as laid out in each ECDL syllabus. In addition, this process validates that the other guidelines concerning the positioning of certification have been followed. In order to ensure a smooth and timely evaluation process, courseware developers should ensure that the guidelines outlined in this document are reflected in courseware prior to submission. In addition, courseware submitted to the Foundation should contain all elements that will constitute the bundle that will be presented to the ECDL Candidate. Evaluators adhere to the guidelines provided below; therefore, these guidelines should also direct courseware developers.

2.5.2 Presentation of Material

(a) Ensure that the courseware is clearly positioned as training that supports the ECDL certification.

(b) Ensure all modules are described by their correct name as used in the syllabus.

(c) Make sure that all the courseware is spell checked and grammar checked.

(d) For certifications consisting of more than one module, make sure that all modules are standalone and that cross-references to other modules for information is avoided.

(e) The ECDL logos will not be issued to courseware providers until after technical acceptance has been confirmed. A Notice of Approval will be issued once a market ready pack has been received

(f) Under **no** circumstances should there be mention of any other certification body in the material. This applies to similar or more technical qualifications. Approval will not be given under these circumstances.

(g) A complete, cross-referenced syllabus evaluation grid should accompany all submissions for evaluation.

(h) Any exercise items used in the courseware should have 15 or fewer questions per section and should not have the same look and format as the ECDL test papers or ECDL diagnostic tests.

(i) Exercise items in the courseware should not be described as "test(s)", assessment(s)", "certification" or "exams"

(j) The terms "pre-test" and "post-test" or "pre-assessment" and "post-assessment" should not be used.

(k) There should be no facility within the training for printing a certificate that details scores or completion.

(l) Ensure exercise items make sense and are actually helping to assist learning within the ECDL knowledge domain.

(m) Disclaimers should be used prior to the presentation of exercise items. The following disclaimer is standard for all exercise material:

This training, which has been approved by the ECDL Foundation, includes exercise items intended to assist ECDL Candidates in their training for ECDL. These exercises are not ECDL certification tests. For information about authorised ECDL Test Centres in different national territories, please refer to the ECDL Foundation website at www.ecdl.com

2.5.3 Syllabus Mapping

(a) A syllabus item referred to in an exercise item or a tip, but with no further description or proper explanation to prepare the student, is marked as "not covered" by the assessor.

(b) Where there is a difference of opinion concerning syllabus mapping either between evaluators or between the Foundation and courseware developers, the Courseware Evaluation Manager will be the final arbiter.

(c) In addition, for all syllabus items relating to the execution of a procedure, **two paths** to complete the procedure must be provided. One must be a complete demonstration, while the other can be a description of that procedure (see section 2.2.3).

2.5.4 Didactic Evaluation

The purpose of the evaluation is not to assess the didactic strength of the courseware, and the manner in which the content is taught is a decision for the courseware developer. However, if the evaluator feels that the courseware has serious issues, then these will be recorded as part of the evaluation process, and ECDL will seek to explain and discuss these issues with the developer. Examples of these might be:

(a) Poor writing that impacts on the ability of the user to learn from the courseware.

(b) Mentioning syllabus items solely in exercises and not in instruction.

2.5.5 Navigation

Make sure that the topics named in the table of contents are the same as those named in the courseware.

2.5.6 Frequently Occurring Courseware Issues

(a) When a certification contains more than one module, knowledge areas and skills that appear as syllabus items in more than one module can be covered comprehensively in **one** section (e.g, copying and help).

However this will only be allowed on the proviso that all 7 modules are being sold together and that the skills have been comprehensively covered in this one section with clear reference being made to them each time in terms of section/chapter/page no's.

This will not be allowed where modules are sold individually

(b) Make sure that information shown in section labels is relevant and makes sense in the context of what is being demonstrated. For example, a section label "Formatting" would be inappropriate if mail merge is being covered.

For volume reasons, it is advisable to examine the courseware critically for texts that are not directly related to the syllabus item being covered. It may be possible to delete these, thus creating room for more detailed descriptions of those topics that do cover syllabus items.

2.6 Accessibility of Courseware

One of the principal objectives of the ECDL certification is to promote and encourage computer literacy for all. A key component of this goal is the availability of courseware to all potential candidates regardless of their physical ability. To this end, the Foundation strongly encourages courseware developers to take into consideration the requirements of ECDL Candidates with disabilities. Specifically, product features of courseware should aim to support, and not exclude, the maximum number of ECDL Candidates, although this is at the discretion of the courseware provider. The following list classifies potential design and development considerations by type of disability.

- ECDL Candidates with visual impairment – text should be readable by a screen reader, graphics with instructional significance should not be used unless a textual description of them is available, and user inputs should not be solely executable with the mouse.

- ECDL Candidates with hearing impairment – audio tracks with instructional significance should not be used unless a textual description is available.

- ECDL Candidates with physical impairment – user inputs should not be solely executable with the mouse.