Data Definitions for XCRI-CAP 1.2

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Thanks are also due to the members of the Data Definitions and Vocabularies Working Group.

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# Abstract

1. The 'Data Definitions for XCRI-CAP 1.2' document defines the data content of elements and attributes in XCRI-CAP 1.2 instances produced via the JISC-funded Course Data Programme (2011 to 2013)[[1]](#footnote-1). Its purpose is to assist publishers of XCRI-CAP feeds to produce high quality, interoperable data sets for aggregation.

# Status of this document

1. This document is version 3.0 (first formal release). Subsequent releases will be published under version control. Potential changes will be publicised via the Course Data Programme’s JISCMAIL list, [coursedatastage1@jiscmail.co.uk](mailto:coursedatastage1@jiscmail.co.uk) and the XCRI Forum at <http://www.xcri.org/forum>.
2. This document should be used alongside the following facilities:

* [XCRI-CAP 1.2 specification](http://www.xcri.org/wiki/index.php/XCRI_CAP_1.2)[[2]](#footnote-2), which defines the information model;
* [XCRI-CAP 1.2 W3C xsd schemas](http://www.xcri.co.uk/h2-info-models.html)[[3]](#footnote-3), which provide an XML binding for the specification; these are not exclusive, and other bindings may also be relevant;
* [XCRI-CAP 1.2 XML validator](http://validator.xcri.co.uk/)[[4]](#footnote-4), which will report on validity of XCRI-CAP feeds;
* XCRI-CAP 1.2 aggregator[[5]](#footnote-5), which will enable the collection of XCRI-CAP 1.2 feeds.

# Relationship to standards

1. The definitions in this document are not normative parts of the XCRI-CAP standard or of BS 8581; other data definitions can represent valid XCRI-CAP 1.2 instances. Compliance with these data definitions will result in production of valid XCRI-CAP 1.2 instances that will also be 'conforming instances' of the Metadata for Learning Opportunities – Advertising (MLO-AD) European Norm ([BS EN 15982](http://standardsdevelopment.bsigroup.com/Home/Project/200902153)).
2. The XCRI-CAP 1.2 specification (the UK eProspectus standard) describes the composition of an XCRI-CAP 1.2 document in terms of its structural elements and attributes, and the relationships between them.
3. This data definition document uses the following additional standards:

* XML: [W3C Extensible Markup Language (XML) standard](http://www.w3.org/TR/2008/REC-xml-20081126/)[[6]](#footnote-6)
* URI: [IETF RFC 3986](http://www.ietf.org/rfc/rfc3986.txt)[[7]](#footnote-7)
* Date and time formats: [ISO 8601](http://www.iso.org/iso/support/faqs/faqs_widely_used_standards/widely_used_standards_other/date_and_time_format.htm)[[8]](#footnote-8)
* Language tags: [IETF BCP47](http://tools.ietf.org/html/bcp47#appendix-A)[[9]](#footnote-9)
* Language tags: [ISO 639-1](http://en.wikipedia.org/wiki/List_of_ISO_639-1_codes)[[10]](#footnote-10)
* XHTML: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>[[11]](#footnote-11)
* UK phone numbers: [National Format Layout](http://www.ofcom.org.uk/static/archive/oftel/publications/numbering/2003/num_guide.htm#1b)[[12]](#footnote-12)
* Email: [RFC 5322](http://tools.ietf.org/html/rfc5322)[[13]](#footnote-13)
* [UK national postcode format](http://en.wikipedia.org/wiki/Postcodes_in_the_United_Kingdom)[[14]](#footnote-14)

## BS 8581

1. The draft British Standard BS 8581 is, at the time of writing (April 2012), available for public review. It is in two parts:

* The specification is at: <http://drafts.bsigroup.com/Home/Details/952>.
* The code of practice (guidelines) is at: <http://drafts.bsigroup.com/Home/Details/953>

1. Instances produced in accordance with the data definitions in this document are expected to produce instances that will conform to BS 8581. However, it is at least technically possible that decisions on BS 8581 will be at variance with this document, in which case any non-compliant sections will be reconsidered.

# Content of this document

1. This document contains general guidelines for implementation of textual descriptive content, including how to output characters that frequently cause difficulties for validating or consuming systems. It specifies element and attribute definitions, structures, formats, classifications, coding systems, and so on for use in XCRI-CAP 1.2 implementations for XCRI-CAP feeds published under the auspices of the JISC-funded Course Data Programme (2011-2013).
2. This document refines the XCRI-CAP 1.2 standard for the purposes of the Course Data Programme. Refinements of the standard place restrictions on the content of data items, such that instance files conforming to this data specification will continue to validate against XCRI-CAP 1.2 schemas. Any extensions to the XCRI-CAP 1.2 standard are clearly indicated, and a mapping back to a strictly conforming instance of the XCRI-CAP 1.2 standard will be supplied. For optionality within the XCRI-CAP 1.2 standard, refer to the XCRI [wiki](http://www.xcri.org/wiki/index.php/XCRI_CAP_1.2)[[15]](#footnote-15).
3. These data definitions do not form part of the XCRI-CAP 1.2 standard; in many areas, for example whether or not elements are mandatory or repeatable, this document specifies additional and more restrictive rules than are present in the XCRI-CAP 1.2 standard. These rules are intended to assist publishers of XCRI-CAP feeds to produce high quality data that will enable the aggregation of the data into interoperable and consistent wider data sets.

## Conventions and terminology

1. This section defines conventions and terms used in this document to present the technical material.
2. The terms 'element' and 'attribute' are used in the context of the [W3C Extensible Markup Language (XML) standard](http://www.w3.org/TR/2008/REC-xml-20081126/)[[16]](#footnote-16) to define logical structures in XML documents.
3. This document recognises three levels of priority for data provision, ‘mandatory’, ‘preferred’ and ‘optional’:

* ‘Mandatory’ means that if the data item is missing from an instance document, the instance is in error (in other words it is not valid). Mandatory data is associated with the verb 'MUST' in this document.
* ‘Preferred’ means that if the data item is missing from an instance document, the instance is valid, but it is strongly recommended that the preferred data is supplied. Preferred data is associated with the verb 'SHOULD' in this document.
* ‘Optional’ means that the data item can be freely omitted. Optional data is associated with the verb 'MAY' in this document.

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# General Guidelines

1. Supply only information that is relevant to each data item, as specified in this document.
2. Data items that are not defined in this document but that are valid against the XCRI-CAP specification can be supplied in an XCRI-CAP instance. These data items may be ignored when the feed is aggregated for the purposes of the Course Data Programme.
3. Normal UK English spelling, grammatical and upper or lower case rules SHOULD be followed, except where definitions prescribe a different format.
4. Full stops SHOULD NOT be included at the end of phrases or keywords that are not sentences.
5. Numbers SHOULD be entered as Arabic numerals and not as words or Roman numerals, unless the context or common practice dictates otherwise. For example: 'NVQ 4' not 'NVQ Four' or 'NVQ IV'.
6. The content of most elements specified in these data definitions will be plain text. The definition of 'plain text' in this context is un-marked-up human-readable printable characters. The <description> element and those elements defined as 'common descriptive elements' MAY consist of XHTML instead of plain text. Other elements MUST NOT include markup.
7. Where hypertext web links are used (URLs), these should, where possible, be Cool URIs. See the [Linking You Toolkit](http://lncn.eu/toolkit)[[17]](#footnote-17) for details.

## Character limits (field lengths)

1. Recommended maximum numbers of characters are indicated in the Format section of each data item.
2. Producers of XCRI-CAP feeds should be aware that consumers MAY truncate elements with lengths greater than the recommended maximum. Character limits given in this document are drawn from the relevant Information Standard Board’s Business Data Standard (BDS)[[18]](#footnote-18), with the exception of Common Descriptive Elements and description elements. The recommended limit for the Common Descriptive Elements and description elements is 4,000 characters, including XHTML markup. Producers should be aware that, if content greater than 4,000 characters is supplied, consumers MAY truncate at 4,000 characters. Consumers operating in strict accordance with the ISB’s Business Data Standard MAY truncate at 2,000 characters.

## Case sensitivity

1. XML element names and attribute names are case sensitive, as are vocabulary keys and values. For example "<studymode>" is incorrect, the correct version is "<studyMode>"; "Ft" and "Full Time" are both incorrect; the correct versions are "FT" and "Full time".

# Special characters

1. This document indicates how unusual or special characters outside the 0-9A-Za-z, white space and common punctuation list should be output in XCRI-CAP 1.2 feeds. It does not include a comprehensive description or resolution of issues to do with character sets, encoding or character references.[[19]](#footnote-19)
2. It is STRONGLY RECOMMENDED that systems use Unicode UTF-8 character encoding throughout the production of XCRI-CAP feed data, so that spurious character substitutions in browsers can be avoided.
3. Avoid using unusual or special characters outside the 0-9A-Za-z, white space and common punctuation list. Currently many information systems do not process special characters (including characters in non-English alphabets and non-printable characters) in a way that results in human-readable output that the input might lead one to expect. This issue is expected to decline as most systems adopt UTF-8 and Unicode.
4. XML predefined entities SHOULD be used in XCRI-CAP data. These are listed in Table 1. The ampersand (&) and semi-colon (;) indicate the start and end of the entity.
5. If XHTML is being used as permitted in description elements and Common Descriptive Elements, then entities that represent special characters SHOULD be used, as defined in the XHTML specification.[[20]](#footnote-20)
6. Numeric character references MAY also be used.

Table : XML predefined entities

|  |  |  |  |
| --- | --- | --- | --- |
| Character | Description | Entity | Notes |
| ' | apostrophe or quote mark | &apos; | Can include back tick or other 'smart' quotes |
| " | double quotes | &quot; | Also includes any form of 'smart' quotation marks. |
| > | greater than | &gt; |  |
| < | less than | &lt; |  |
| & | ampersand | &amp; | or substitute 'and' |

# Namespaces

1. For use in a W3C schema context, specific namespace declarations are REQUIRED for some elements and attributes. The namespaces used in the main XCRI-CAP schemas are given in the table below. The stated Common Abbreviation is as used by convention in the current versions of the schemas and many instance files. They are also used in examples in this document; where no Common Abbreviation is used, the http://xcri.org/profiles/1.2/catalog should be assumed. The abbreviation for the namespace is defined within an individual file, so it is not necessary to use the Common Abbreviations stated here.
2. The Course Data Programme projects MAY use additional vocabularies, identifiers and data types within specific communities of practice. Where a namespace does not yet formally exist and projects wish to define and use types that are not contained in the current schemas but are within the scope of XCRI-CAP 1.2 – for example additional terms for description elements, or for validation of identifier formats – it is recommended that the separate courseDataProgramme schema[[21]](#footnote-21) is used. Declarations for these vocabularies, identifiers and data types can be added to the CourseDataProgramme schema on request via the [XCRI Forum](http://www.xcri.co.uk/forum/)[[22]](#footnote-22).

Table 2: Namespaces used in XCRI-CAP schemas

|  |  |  |
| --- | --- | --- |
| Description | Namespace | Common Abbreviation |
| XCRI-CAP 1.2 | http://xcri.org/profiles/1.2/catalog | xcri (or none, if default namespace) |
| XCRI-CAP 1.2 Terms | http://xcri.org/profiles/1.2/catalog/terms | xcriTerms |
| Metadata for Learning Opportunities | http://purl.org/net/mlo | mlo |
| Dublin Core terms | http://purl.org/dc/elements/1.1/ | dc |
| Dublin core extended terms | http://purl.org/dc/terms/ | dcterms |
| XHTML | http://www.w3.org/1999/xhtml | xhtml |
| W3C xml | http://www.w3.org/2001/XMLSchema | xs |
| Basic XML namespace | http://www.w3.org/XML/1998/namespace |  |
| Credit model | http://purl.org/net/cm | credit |
| Course Data Programme | http://xcri.co.uk | courseDataProgramme |

1. Some vocabularies or related additional data may require additional namespaces, for example for geolocation searching. These namespace declarations have been included in the Comments section and are repeated here for convenience. In this edition only geolocation is included.

Table 3: Additional recommended namespaces

|  |  |  |
| --- | --- | --- |
| Description | Namespace | Common Abbreviation |
| Geolocation using latitude and longitude | http://www.w3.org/2003/01/geo/wgs84\_pos# | Geo |

# Licensing of XCRI-CAP feeds

1. It is a principle of XCRI-CAP feeds produced under the Course Data Programme that the data should be freely available to any aggregator or other user, organisation or individual to copy, re-distribute, share, adapt and exploit commercially or otherwise. This document recommends that all such feeds are explicitly licensed under an Open Government Licence (OGL)[[23]](#footnote-23). This licence grants to the user a worldwide, royalty-free, perpetual, non-exclusive licence to use the information, while providing for acknowledgement of the source of the information. This licence contains no warranty or liability on the provider, and importantly also includes specific non-endorsement clauses. The OGL licence is similar to a Creative Commons licence, but attribution is only needed if the copyright holder makes it a requirement. Where multiple providers are involved, an optional generic statement that 'public sector information' is included, rather than a specific attribution, can be used.
2. It is important that data publishers are familiar with the terms of the OGL for the avoidance of doubt about how the information may be used and the constraints placed on any user. The JISC sponsored document “Licensing Open data: A Practical Guide” June 2011[[24]](#footnote-24) provides a sound overview of the licence landscape.
3. The following information about the licence attached to the data should be included in the description element of the catalog element:

* Name of the licence, for example ‘Open Government Licence (OGL)’
* Version number of the licence
* Owner of the licence, for example ‘University of Test’

# Elements and attributes

1. The details of each element and attribute (collectively 'data items') are grouped together alphabetically under the core elements of the XCRI-CAP 1.2 specification: catalog, provider, course, presentation, qualification and credit. The core elements are grouped according to their order in the XCRI-CAP specification.
2. Each section starts with the definition of the core element.
3. Each data item has:

* Hierarchical position in the XML instance (for example: catalog >> provider >> course)
* Data item type – element or attribute
* Name – label to identify the data item
* Namespace – URI of the namespace of the element
* Description – text describing the expected content of the data item
* Format – type of data, character limit, technical restrictions, any vocabulary or coding scheme that is to be used – this may reference an external source
* Optionality – whether the data item is mandatory, preferred, optional and / or multiple
* Parent – parent element
* Children – list of direct child elements
* Attributes – for elements, a list of any attributes
* Example – an example of the data item
* Comments – any additional information about the data item

1. To save space, some Common Elements and Common Descriptive Elements are grouped separately. Where there are specific additional requirements for these data items within a core element, they are listed additionally under that core element.
2. Where an element has attributes, these are defined immediately after the element.

## Common Elements

1. The XCRI-CAP specification permits the use of the following set of Common Elements in each of the core elements. In these Data Definitions it is necessary to supply only a sub-set of the Common Elements. See the core element sections for details of usage in that context.

* hasPart
* isPartOf
* contributor
* date
* description
* identifier
* image
* subject
* title
* type
* url

### contributor

|  |  |  |
| --- | --- | --- |
| Element | Name: contributor | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An organisation, group or individual responsible for making contributions to the resource. | |
| Format | Plain text | |
| Optionality | Optional | |
| Parent | See core element sections. | |
| Children | None (see Comments) | |
| Attributes | None (see Comments) | |

### date

1. The **date** element MUST NOT be used. Instead use the **start** element and the other temporal elements defined in this document: **end**, **applyFrom**, and **applyUntil**.

### description

|  |  |  |
| --- | --- | --- |
| Element | Name: description | Namespace: http://purl.org/dc/elements/1.1/ |
| See description element in core element sections. | | |

### hasPart

|  |  |  |
| --- | --- | --- |
| Element | Name: hasPart | Namespace: http://purl.org/net/mlo |
| Description | Text about relationship between the resource and a child resource. | |
| Format | Plain text (see Comments) | |
| Optionality | Optional (see Comments) | |
| Parent | See core element sections. | |
| Children | None (see Comments) | |
| Attributes | None (see Comments) | |
| Comments | This element is currently unstructured. It is envisaged that implementers may wish to define structures for this element, so that it can be used to describe how the core element relates to a child element. For example this element might contain an identifier and a type of relationship. | |

### identifier

|  |  |  |
| --- | --- | --- |
| Element | Name: identifier | Namespace: http://purl.org/dc/elements/1.1/ |
| See identifier element in core element sections. | | |

### image

|  |  |  |
| --- | --- | --- |
| Element | Name: image | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | An image element is used to enable images to be displayed by a service. | |
| Format | If images are included, a Producer SHOULD offer images in a standard format, such as PNG, GIF and JPEG. The element content MUST be empty; the image is defined within its attributes. | |
| Optionality | Optional; zero or one | |
| Parent | See core element sections. | |
| Children | None | |
| Attributes | src, title, alt | |
| Examples | <dc:image src="http://myUni.ac.uk/courses/A101/logo.png" title="Study XCRI" alt="Logo for the XCRI course"/> | |
| Comments | A typical image might be an organisation's logo, drawn from its website. | |

#### Attributes of image

##### src

|  |  |
| --- | --- |
| Attribute | Name: src |
| Description | Identifies the location of the image on the internet. |
| Format | The content MUST conform to a URI as in [IETF RFC 3986](http://www.ietf.org/rfc/rfc3986.txt). |
| Optionality | Mandatory |
| Examples | See element. |

##### title

|  |  |
| --- | --- |
| Attribute | Name: title |
| Description | The name of an image, such as could be used as a caption. |
| Format | Plain text |
| Optionality | Optional |
| Examples | See element. |

##### alt

|  |  |
| --- | --- |
| Attribute | Name: alt |
| Description | Alternative text to display if the image cannot be rendered. While @alt is strictly optional, a Producer SHOULD provide meaningful alternative text. |
| Format | Plain text |
| Optionality | Preferred |
| Examples | See element |
| Comments | None |

### isPartOf

|  |  |  |
| --- | --- | --- |
| Element | Name: isPartOf | Namespace: http://purl.org/net/mlo |
| Description | Text about relationship between the resource and a parent resource. | |
| Format | Plain text (see Comments) | |
| Optionality | Optional (see Comments) | |
| Parent | See core element sections. | |
| Children | None (see Comments) | |
| Attributes | None (see Comments) | |
| Comments | This element is currently unstructured. It is envisaged that implementers may wish to define structures for this element, so that it can be used to describe how the core parent element relates to another element. For example this element might contain an identifier and a type of relationship. | |

### subject

|  |  |  |
| --- | --- | --- |
| Element | Name: subject | Namespace: http://purl.org/dc/elements/1.1/ |
| See subject element in core element sections. | | |

### title

|  |  |  |
| --- | --- | --- |
| Element | Name: title | Namespace: http://purl.org/dc/elements/1.1/ |
| See title element in core element sections. | | |

### type

|  |  |  |
| --- | --- | --- |
| Element | Name: type | Namespace: http://purl.org/dc/elements/1.1/ |
| See type element in core element section. | | |

### url

|  |  |  |
| --- | --- | --- |
| Element | Name: url | Namespace: http://purl.org/net/mlo |
| See url element in core element section. | | |

## 

## Core elements: General Information

1. The core elements in XCRI-CAP 1.2 are catalog, provider, course, presentation, qualification and credit. Location is slightly different, because it can occur within the context of a provider as an entity offering courses, or within the context of a provider as an entity relating to the venue of presentations. The relationship between the core elements is shown in Figure 1.

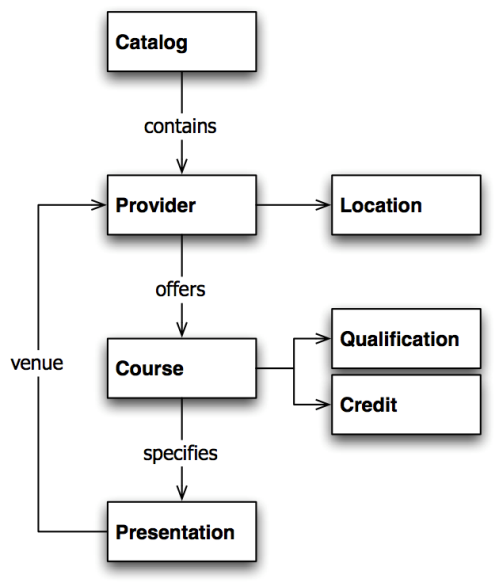


Figure 1: XCRI-CAP 1.2 Information Model

## Elements by core element: catalog

### catalog

|  |  |  |
| --- | --- | --- |
| Element | Name: catalog | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Root element. Holds all the data in the XCRI-CAP feed. | |
| Format | Valid XML instance conforming or strictly conforming to the XCRI-CAP 1.2 specification. See <http://www.xcri.org/wiki/index.php/XCRI_CAP_1.2#Conformance>. | |
| Optionality | Mandatory; one and only one | |
| Parent | Not applicable | |
| Children | description (preferred)  provider (mandatory)  All other Common Elements MAY be included. | |
| Attributes | generated | |
| Examples | Sample XCRI-CAP 1.2 example file: <http://www.xcri.co.uk/technical-implementation/272-sample-xcri-cap-12-instance-file-for-the-open-university.html>. This example file will be replaced or enhanced by specific files relating to communities of practice. | |
| Comments | The catalog element does not imply a relationship between the XCRI-CAP document and a course catalog. A catalog does not necessarily relate to a concept of a catalog in an originating or consuming system, but rather provides the context for the content of the XCRI-CAP document. | |

#### Attributes of catalog

##### generated

|  |  |
| --- | --- |
| Attribute | Name: generated |
| Description | The date and time at which the catalog was generated |
| Format | The content MUST comply with date and time format for ISO 8601.  YYYY-MM-DDThh:mm:ssZ |
| Optionality | Mandatory |
| Examples | 2011-12-21T17:45:00Z |

### description

catalog >> description

|  |  |  |
| --- | --- | --- |
| Element | Name: description | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Textual description of the coverage of the catalog, its provenance, status, licensing arrangements and similar information to guide an aggregator | |
| Format | Plain text; max: 4,000 characters | |
| Optionality | Preferred | |
| Parent | Catalog | |
| Children | None | |
| Attributes | None | |
| Examples | <dc:description>Continuing Professional Development (CPD) courses offered by the Business School, University of Innsmouth. Updated daily. Licence: Open Government Licence (OGL), v1.0</dc:description> | |

#### Attributes of description

##### xml:lang

|  |  |
| --- | --- |
| Attribute | Name: xml:lang |
| Description | The language used for the description |
| Format | A valid language tag according to the [IETF BCP47](http://tools.ietf.org/html/bcp47#appendix-A) specification, using 2-character [ISO 639-1](http://en.wikipedia.org/wiki/List_of_ISO_639-1_codes) codes.  2-character [ISO 639-1](http://en.wikipedia.org/wiki/ISO_639-1) codes; default 'en' |
| Optionality | Optional; if not present, then consumers MUST assume that the language of the element is English. |
| Examples | <dc:description xml:lang="en">  <dc:description xml:lang="cy">  <dc:description xml:lang="fr"> |
| Comments | There is a range of ISO 639 coding systems. This document has opted for the simplest.  Namespace: xml="http://www.w3.org/XML/1998/namespace" |

##### href

|  |  |
| --- | --- |
| Attribute | Name: href |
| Description | A URL linking to general textual information about the parent element. |
| Format | The content MUST conform to a URI as in [IETF RFC 3986](http://www.ietf.org/rfc/rfc3986.txt). |
| Optionality | If element is empty, then href is mandatory; otherwise MUST NOT be used. |
| Examples | <dc:description href="http://www.myUni.ac.uk/courses/A101/summary.html"/> |
| Comments | href SHOULD be a [cool URI](http://linkingyou.blogs.lincoln.ac.uk/2011/04/19/all-recommendations-lead-back-to-cool-uris/)[[25]](#footnote-25) that resolves appropriately to human-readable text for browsers. For advice on cool URIs, see <http://lncn.eu/toolkit/recommendations>. |

### provider

catalog >> **provider**

|  |  |  |
| --- | --- | --- |
| Element | Name: provider | Namespace: http://xcri.org/profiles/1.2/catalog |
| See [provider Core Element](#_Core_Element:_provider). | | |

## Elements by core element: provider

### Core Element: provider

catalog >> **provider**

|  |  |  |
| --- | --- | --- |
| Element | Name: provider | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Holds the data relating to the learning opportunity provider and all the courses data. A provider is any organisation, component of an organisation or partnership that offers one or more learning opportunities. | |
| Format | MUST contain the mandatory elements and MAY contain the other elements as specified in children below. MAY also contain other elements conforming or strictly conforming to the XCRI-CAP 1.2 specification. | |
| Optionality | Mandatory; one and only one | |
| Parent | catalog | |
| Children | [course](#_Core_Element:_course) (mandatory)  [description](#_description_(provider_context)_1) (optional)  [identifier](#_identifier_(provider_context)) (mandatory)  [location](#_location_(provider_context)) (mandatory)  [title](#_title_(provider_context)) (mandatory)  [url](#_url_(provider_context)) (mandatory) | |
| Attributes | None | |
| Examples | See sample XCRI-CAP 1.2 example file: <http://www.xcri.co.uk/technical-implementation/272-sample-xcri-cap-12-instance-file-for-the-open-university.html>. This file will be replaced or enhanced by specific example files relating to communities of practice. | |
| Comments | Provider is mandatory in this data specification, though it is optional in the XCRI-CAP 1.2 standard. Also each feed must contain only one provider.  If multiple providers are involved in offering the course, this should be indicated in the course <description> element, together with a description of the relationship between the providers. Such courses may be repeated in each provider's XCRI-CAP feed.  If desired, a sub-component of the provider (for instance a school, faculty or department) can be named in a description element with xsi:type = "courseDataProgramme:childOrganisation". See the Course Data Programme schema[[26]](#footnote-26). | |

### course

catalog >> provider >> **course**

|  |  |  |
| --- | --- | --- |
| Element | Name: course | Namespace: http://xcri.org/profiles/1.2/catalog |
| See [course Core Element](#course). | | |

### description (provider context)

catalog >> provider >> **description**

|  |  |  |
| --- | --- | --- |
| Element | Name: description | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | General textual information about the provider and its facilities.  May include more complex details about how enquiries are made than the <location> element, for example how to obtain prospectuses, contact details for international students and so on. | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters, including markup | |
| Optionality | Optional; zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | provider | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Examples | <dc:description href="http://www3.open.ac.uk/study/"/> | |
| Comments | Safe use of XHTML: See the wiki section on [Security Considerations](http://www.xcri.org/wiki/index.php/XCRI_CAP_1.2#Security_Considerations) for guidance.  This information is likely to be defined more closely in terms of length and content by communities of practice, as content length and complexity depends on the aggregating systems.  If desired, a sub-component of the provider (for instance a school, faculty or department) can be named in a description element with xsi:type = "courseDataProgramme:childOrganisation". See the Course Data Programme schema[[27]](#footnote-27). | |

### identifier (provider context)

catalog >> provider >> **identifier**

|  |  |  |
| --- | --- | --- |
| Element | Name: identifier | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the provider. | |
| Format | Structures MUST NOT contain more than one identifier without an explicitly-defined encoding scheme, and this MUST be a URI, and the content MUST conform to a URI as in IETF RFC 3986.  This element MUST use the Dublin Core Namespace: <http://purl.org/dc/elements/1.1/>  One of the identifiers MUST be a URI as specified above.  Max: 50 characters | |
| Optionality | Mandatory; at least one  Minimum provider identifier MUST be a URI. Other identifiers are encouraged, as long as they are defined with an encoding scheme, for example, a UK Provider Reference Number (ukprn)[[28]](#footnote-28), qualified using xsi:type to a specific identifier namespace. | |
| Parent | provider | |
| Children | None | |
| Attributes | xsi:type (for namespace-based encoding schemes) | |
| Examples | <dc:identifier>http://www.myUni.ac.uk/</dc:identifier>  <dc:identifier xsi:type="http://xcri.co.uk:ukprn">12345678</dc:identifier> | |
| Comments | Explicitly-defined encoding schemes will need namespaces unless defined within the xcri namespace, for example via the Course Data Programme schema[[29]](#footnote-29). | |

### location (provider context)

catalog >> provider >> **location**

|  |  |  |
| --- | --- | --- |
| Element | Name: location | Namespace: http://purl.org/net/mlo |
| Description | Holds information about the spatial location of the provider. It contains the official address for administrative enquiries and the geographical location of the main site of the organisation. | |
| Format | MUST contain the mandatory elements and MAY contain the other elements as specified in children below. | |
| Optionality | Mandatory; one and only one | |
| Parent | provider | |
| Children | address (mandatory)  email (preferred)  fax (optional)  phone (mandatory)  postcode (mandatory)  town (optional)  url (optional) | |
| Attributes | None | |
| Examples | <mlo:location>  <mlo:postcode>MK7 6BJ</mlo:postcode>  <mlo:address>PO Box 197</mlo:address>  <mlo:address>Milton Keynes</mlo:address>  <mlo:phone>0845 3006090</mlo:phone>  <mlo:fax>01908 653744</mlo:fax>  <mlo:email>general\_enquiries@open.ac.uk</mlo:email>  </mlo:location> | |

### address (provider context)

catalog >> provider >> location >> **address**

|  |  |  |
| --- | --- | --- |
| Element | Name: address | Namespace: http://purl.org/net/mlo |
| Description | Specifies the geographical or spatial location of the provider's main administrative site | |
| Format | More than one set of different valid formats MAY be used. Each set that is not a postal address MUST use an explicitly-defined encoding scheme.  Postal address: there MUST be one set of address elements that has no encoding scheme, and this set of address elements MUST consist of the sequential lines of the official postal address (except for the postcode), so that these elements can be combined with the <postcode> element to form the full postal address. Each postal address line must be contained in its own <address> element. The postal address elements must be ordered so that the sequence in the document will generate successive postal address lines.  Geo-location encoding: latitude and longitude MAY be indicated in address elements, using an additional encoding scheme (see examples). | |
| Optionality | Mandatory; at least one set | |
| Parent | location | |
| Children | None | |
| Examples | <mlo:postcode>MK7 6BJ</mlo:postcode>  <mlo:address>PO Box 197</mlo:address>  <mlo:address>Milton Keynes</mlo:address>  <mlo:postcode>NG7 2NR</mlo:postcode>  <mlo:address>Information Services</mlo:address>  <mlo:address>Room B159</mlo:address>  <mlo:address>University of Nottingham</mlo:address>  <mlo:address>Kings Meadow Campus</mlo:address>  <mlo:address>Nottingham</mlo:address>  <mlo:address xsi:type="geo:lat">-123.7</mlo:address>  <mlo:address xsi:type="geo:long">54</mlo:address> | |
| Comments | Use of the street and town elements in postal addresses is deprecated, as these elements do not promote data integrity when data is exchanged.  Namespace for 'geo': http://www.w3.org/2003/01/geo/wgs84\_pos# | |

### email

catalog >> provider >> location >> **email**

|  |  |  |
| --- | --- | --- |
| Element | Name: email | Namespace: http://purl.org/net/mlo |
| Description | Email address of the provider's main administrative site | |
| Format | Up to 254 characters; local-part@domain as formally defined in [RFC 5322](http://tools.ietf.org/html/rfc5322). | |
| Optionality | Preferred; zero or one | |
| Parent | location | |
| Children | None | |
| Examples | general\_enquiries@myuni.ac.uk | |
| Comments | Standard email address format is important here, as validators are likely to validate this element. This means that a link to a web form SHOULD NOT be used. | |

### fax

catalog >> provider >> location >> **fax**

|  |  |  |
| --- | --- | --- |
| Element | Name: fax | Namespace: http://purl.org/net/mlo |
| Description | Fax number of the provider's main administrative site | |
| Format | UK [National Format Layout](http://www.ofcom.org.uk/static/archive/oftel/publications/numbering/2003/num_guide.htm#1b) (Area Code and Number) as prescribed by Ofcom | |
| Optionality | Optional; zero or one | |
| Parent | location | |
| Children | None | |
| Examples | 01632 496496 | |
| Comments | Consumers should note that incorrectly formatted fax numbers MUST NOT invalidate an instance. | |

### phone

catalog >> provider >> location >> **phone**

|  |  |  |
| --- | --- | --- |
| Element | Name: phone | Namespace: http://purl.org/net/mlo |
| Description | Main telephone number of the provider's main administrative site | |
| Format | UK [National Format Layout](http://www.ofcom.org.uk/static/archive/oftel/publications/numbering/2003/num_guide.htm#1b) (Area Code and Number) as prescribed by Ofcom | |
| Optionality | Mandatory; one and only one | |
| Parent | location | |
| Children | None | |
| Examples | 01632 496496 | |
| Comments | Consumers should note that incorrectly formatted phone numbers MUST NOT invalidate an instance. | |

### postcode (provider context)

catalog >> provider >> location >> **postcode**

|  |  |  |
| --- | --- | --- |
| Element | Name: postcode | Namespace: http://purl.org/net/mlo |
| Description | Full official postcode of the address of the provider's main site | |
| Format | Between 2 and 4 characters:  (one or two letters)(number between 0 and 99)(zero or one letter)  space  3 characters: (single digit)(two letters)  Max: 8 characters | |
| Optionality | Mandatory; one and only one | |
| Parent | location | |
| Children | None | |
| Attributes | None | |
| Examples | M1 1AA, B33 8TH, CR2 6XH, DN55 1PT, W1A 1HQ, EC1A 1BB | |
| Comments | Used as the final part of the UK postal address, combined with address elements. | |

### town

catalog >> provider >> location >> **town**

|  |  |  |
| --- | --- | --- |
| Element | Name: town | Namespace: http://purl.org/net/mlo |
| Description | The name of the town or city in which the provider's main site is situated. Its purpose is for use with software functionality that requires a town or city for searching. | |
| Format | Plain text with first letter of each word upper case, the remainder lower case  Max: 50 characters | |
| Optionality | Optional; zero or one | |
| Parent | location | |
| Children | None | |
| Attributes | None | |
| Examples | <town>Stroud</town> | |
| Comments | This is not part of the postal address, for which see the address element. This element might be used by information systems for geographical searching. | |

### url

catalog >> provider >> location >> **url**

|  |  |  |
| --- | --- | --- |
| Element | Name: url | Namespace: http://purl.org/net/mlo |
| Description | A URL with information relating to the location of the provider, for example a map or directions | |
| Format | The content MUST conform to a URI as in [IETF RFC 3986](http://www.ietf.org/rfc/rfc3986.txt). | |
| Optionality | Optional; zero or one | |
| Parent | location | |
| Children | None | |
| Attributes | None | |
| Examples | <mlo:url>http://www.myUni.ac.uk/directions</mlo:url> | |
| Comments | It is recommended that the URI or URL resolves to human-readable content for browsers, and machine-readable content for automatic data services (see [Cool URIs](http://linkingyou.blogs.lincoln.ac.uk/2011/04/19/all-recommendations-lead-back-to-cool-uris/)[[30]](#footnote-30)). | |

### title (provider context)

catalog >> provider >> **title**

|  |  |  |
| --- | --- | --- |
| Element | Name: title | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Trading name of the provider | |
| Format | Plain text using title case | |
| Optionality | Mandatory; one and only one  Max: 255 characters | |
| Parent | provider | |
| Children | None | |
| Attributes | lang. See [description in Common Elements](#descriptionElement). | |
| Examples | <dc:title>University of Gloucestershire</dc:title> | |
| Comments | Multiple titles are permitted in the XCRI-CAP 1.2 standard. However, this data specification does not offer a means of differentiating between multiple titles. Therefore one and only one title is mandated, and it must be the trading name of the provider. | |

### url (provider context)

catalog >> provider >> **url**

|  |  |  |
| --- | --- | --- |
| Element | Name: url | Namespace: http://purl.org/net/mlo |
| Description | The URL of the main web page of the provider | |
| Format | The content MUST conform to a URI as in [IETF RFC 3986](http://www.ietf.org/rfc/rfc3986.txt). | |
| Optionality | Mandatory (one and only one) | |
| Parent | provider | |
| Children | None | |
| Attributes | None | |
| Examples | <mlo:url>http://www.myUni.ac.uk/</mlo:url> | |
| Comments | It is recommended that the URI or URL resolves to human-readable content for browsers, and machine-readable content for automatic data services (see [Cool URIs](http://linkingyou.blogs.lincoln.ac.uk/2011/04/19/all-recommendations-lead-back-to-cool-uris/)[[31]](#footnote-31)).  Feeds SHOULD use the url element even if the URL is given as an identifier, because aggregators might use this element for the specific purpose of linking to the provider's website. | |

## Elements by core element: course

### Core Element: course

catalog >> provider >> **course**

|  |  |  |
| --- | --- | --- |
| Element | Name: course | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Holds the data relating to the learning opportunity. | |
| Format | MUST contain the mandatory elements and MAY contain the other elements as specified in children below. MAY also contain other elements conforming or strictly conforming to the XCRI-CAP 1.2 specification. | |
| Optionality | Mandatory; at least one | |
| Parent | provider | |
| Children | Common Descriptive Elements:  [abstract](#_abstract) (preferred)  [applicationProcedure](#_applicationProcedure) (optional)  [assessment](#_assessment) (optional)  [learningOutcome](#_learningOutcome) (optional)  [objective](#_objective) (optional)  [prerequisite](#_prerequisite) (optional)  [regulations](#_regulations) (optional)  [credit](#_Core_Element:_credit) (optional)  [description](#_description_(course_context)_1) (preferred)  [identifier](#_identifier_(course_context)) (mandatory)  [presentation](#_presentation) (preferred)  [qualification](#_qualification) (mandatory if course leads to award of a qualification; otherwise do not use)  [subject](#_subject_(course_context)_1) (mandatory)  [title](#_title_(course_context)) (mandatory)  [type](#_type_(course_context)) (optional)  [url](#_url_(course_context)) (preferred) | |
| Attributes | None | |
| Examples | See sample XCRI-CAP 1.2 example file: <http://www.xcri.co.uk/technical-implementation/272-sample-xcri-cap-12-instance-file-for-the-open-university.html>. This file will be replaced or enhanced by specific example files relating to communities of practice. | |
| Comments | Course is mandatory in this data specification, though it is optional in the XCRI-CAP 1.2 standard. | |

### Common Descriptive Elements

1. There are 7 common descriptive elements in XCRI-CAP 1.2, as listed below. The abstract element SHOULD be supplied in the course element, and any of the other 6 elements MAY be supplied in course elements and / or presentation elements.

* abstract
* applicationProcedure
* assessment
* learningOutcome
* objective
* prerequisite
* regulations

1. All common descriptive elements are 'inheritable'. Inheritable elements are elements whose content can be inferred within child elements from a parent element. This enables documents to be less verbose by not repeating basic information. The following example illustrates how this is implemented.

<course>

...

<mlo:objective>This course is aimed at providing a basic competence in electrical engineering</mlo:objective>

<presentation>

...

</presentation>

<presentation>

...

<mlo:objective>This course is aimed at providing a basic competence in electrical engineering with the specific aim of progressing to a professional qualification</mlo:objective>

</presentation>

</course>

The first presentation does not have an explicit <mlo:objective> element, therefore its objective can be inferred from the course element. A consuming system can use the course objective for this presentation if needed. The second presentation has a modified objective, so it contains an explicit <mlo:objective> element, and a consuming system must use this one and not the one at course level.

1. If the 7 common descriptive elements are used, they SHOULD be included in the course element and not repeated in the presentation element. They SHOULD be included in the presentation element, only if the information is different from that included in the course element.
2. Although for curriculum management or curriculum design purposes you might want to exchange individual learning outcome items or individual assessment items, it is most likely in the course marketing domain that we want only one such element. Therefore each of the learningOutcome and assessment data items SHOULD be implemented as single elements rather than as multiples, except where information in more than one language is required.

### abstract

catalog >> provider >> course >> **abstract**

|  |  |  |
| --- | --- | --- |
| Element | Name: abstract | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | A short one-sentence description for use in a course list | |
| Format | Up to 140 characters of plain text | |
| Optionality | Preferred; zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | course or presentation | |
| Children | None | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Examples | <abstract> If you've ever considered writing a novel or short stories, this practical introduction to writing fiction will get you started. </abstract> | |
| Comments | See [text at section start](#CommonDescriptiveElements). The abstract will normally be included in the course element not the presentation element. | |

### applicationProcedure

catalog >> provider >> course >> **applicationProcedure**

|  |  |  |
| --- | --- | --- |
| Element | Name: applicationProcedure | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Text describing how to apply for the learning opportunity. | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters including markup | |
| Optionality | Optional; zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | course or presentation | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Examples | <applicationProcedure>You can register online using the 'click to register' button in the online prospectus, http://www.myUni.ac.uk/prospectus. </applicationProcedure> | |
| Comments | See [text at section start](#CommonDescriptiveElements). | |

### assessment

catalog >> provider >> course >> **assessment**

|  |  |  |
| --- | --- | --- |
| Element | Name: assessment | Namespace: http://purl.org/net/mlo |
| Description | Text describing the broad approach to assessment used in the learning opportunity | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters including markup | |
| Optionality | Optional; zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | course or presentation | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Examples | <mlo:assessment href="http://www.myUni.ac.uk/courses/A101/assessment.htm"/> | |
| Comments | See [text at section start](#CommonDescriptiveElements). | |

### learningOutcome

catalog >> provider >> course >> **learningOutcome**

|  |  |  |
| --- | --- | --- |
| Element | Name: learningOutcome | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Text describing the learning outcomes for a course of study. | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters including markup | |
| Optionality | Optional; zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | course or presentation | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Examples | <learningOutcome><div xmlns="http://www.w3.org/1999/xhtml">At the end of this unit you should be able to:  <ul><li>Describe what XCRI-CAP is and its importance in relation to course advertising information within your institution.</li>  <li>Outline a generic business case for XCRI-CAP. </li>  <li>Analyse your institution's position in respect of course advertising information management on the basis of your existing knowledge of institutional processes. </li></ul></div></learningOutcome> | |
| Comments | See [text at section start](#CommonDescriptiveElements). | |

### objective

catalog >> provider >> course >> **objective**

|  |  |  |
| --- | --- | --- |
| Element | Name: objective | Namespace: http://purl.org/net/mlo |
| Description | Text describing aims or learning objectives of the learning opportunity | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters including markup | |
| Optionality | Optional; zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | course or presentation | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Examples | <mlo:objective href="http://www.myUni.ac.uk/courses/A101/objective.htm"/> | |
| Comments | See [text at section start](#CommonDescriptiveElements). | |

### prerequisite

catalog >> provider >> course >> **prerequisite**

|  |  |  |
| --- | --- | --- |
| Element | Name: prerequisite | Namespace: http://purl.org/net/mlo |
| Description | Textual description of the entry requirements (academic and / or non-academic, formal or informal) for entry to a learning opportunity | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters including markup | |
| Optionality | Optional; zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | course or presentation | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Examples | <mlo:prerequisites> We assume that someone starting this module will have previous study experience to at least intermediate level in higher education (in the UK this means HND, Diploma of Higher Education or Foundation Degree), or have equivalent practical experience, which will enable them to study at postgraduate level. </mlo:prerequisites> | |
| Comments | See [text at section start](#CommonDescriptiveElements). | |

### regulations

catalog >> provider >> course >> **regulations**

|  |  |  |
| --- | --- | --- |
| Element | Name: regulations | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Textual description of the organisation's academic and administrative regulations relevant to a learning opportunity | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters including markup | |
| Optionality | Optional; zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | course or presentation | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Examples | <regulations href="http://www.myUni.ac.uk/courses/A101/A101\_regulations.pdf"/> | |
| Comments | See [text at section start](#CommonDescriptiveElements). | |

### credit

catalog >> provider >> course >> **credit**

|  |  |  |
| --- | --- | --- |
| Element | Name: credit | Namespace: http://purl.org/net/mlo |
| See [credit Core Element](#_Elements_by_core_2). | | |

### description (course context)

catalog >> provider >> course >> **description**

|  |  |  |
| --- | --- | --- |
| Element | Name: description | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | General summary of the course | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters including markup | |
| Optionality | Preferred; zero or one in a single language; multiple permitted to enable information in more than one language. For description elements that are more specific than course summary, for example using the XCRI Terms description vocabulary, use an xsi:type to specify the vocabulary term. | |
| Parent | course | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Comments | Safe use of XHTML: See the wiki section on [Security Considerations](http://www.xcri.org/wiki/index.php/XCRI_CAP_1.2#Security_Considerations) for guidance.  This element SHOULD be used in addition to the abstract element. These two elements provide basic details of the course for services that do not have specific containers for the named Common Descriptive Elements. | |

### identifier (course context)

catalog >> provider >> course >> **identifier**

|  |  |  |
| --- | --- | --- |
| Element | Name: identifier | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the course | |
| Format | The course element MUST NOT contain more than one identifier without an explicitly-defined encoding scheme.  An identifier without an explicitly-defined encoding scheme SHOULD be a URI, and the content SHOULD conform to a URI as in IETF RFC 3986.  This element MUST use the Dublin Core Namespace: <http://purl.org/dc/elements/1.1/>  Max: 50 characters | |
| Optionality | Mandatory; at least one  Other identifiers are encouraged, as long as they are defined with an encoding scheme (for example, a ukprn), qualified using xsi:type to a specific namespace. | |
| Parent | provider | |
| Children | None | |
| Attributes | xsi:type (for namespace-based encoding schemes) | |
| Examples | <dc:identifier>http://www.myUni.ac.uk/courses/A101</dc:identifier>  <dc:identifier xsi:type="http://www.ucas.ac.uk/:UCAScoursecode">V100</dc:identifier>  <dc:identifier xsi:type="http://xcri.co.uk:internalID">A101</dc:identifier> | |
| Comments | Although an identifier is mandatory, it is not a requirement that an identifier must or should be a URI. However, if a URI is not used, the identifier SHOULD use an explicitly defined encoding scheme, denoting what it is, for example a UCAS Course Code or an internal ID. The Course Data Programme schema defines an internalID type for use in this context – see example above. | |

### presentation

catalog >> provider >> course >> **presentation**

|  |  |  |
| --- | --- | --- |
| Element | Name: presentation | Namespace: http://xcri.org/profiles/1.2/catalog |
| See [presentation Core Element](#_Elements_by_core_1). | | |

### qualification

catalog >> provider >> course >> **qualification**

|  |  |  |
| --- | --- | --- |
| Element | Name: qualification | Namespace: http://purl.org/net/mlo |
| See [qualification Core Element](#_Elements_by_core). | | |

### subject (course context)

catalog >> provider >> course >> **subject**

|  |  |  |
| --- | --- | --- |
| Element | Name: subject | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | The topic of the course | |
| Format | Plain text that MUST be a human-readable value from a classification or encoding scheme, or a single keyword or a single phrase.  Use of a classification or encoding scheme is PREFERRED. Some examples are given in the XCRI Knowledge Base [Vocabularies article](http://www.xcri.co.uk/what-is-vocabularies.html).  Max: 100 characters | |
| Optionality | Mandatory; at least one | |
| Parent | course | |
| Children | None | |
| Attributes | xsi:type  identifier | |
| Examples | <dc:subject xsi:type="http://xcri.co.uk:JACS3" identifier="V100">History</dc:subject>  <dc:subject>Leadership</dc:subject>  <dc:subject>Working with Young People</dc:subject> | |
| Comments | Classifications or encoding schemes MUST be specified in an @xsi:type attribute.  For classifications or encoding schemes with key-value pairs, the key MUST be stated in the @identifier attribute and the value in the subject element.  Different subject vocabularies will be used by different communities of practice. | |

#### Attributes of subject

##### identifier

|  |  |
| --- | --- |
| Attribute | Name: identifier |
| Description | Identifies the key in a key-value pair from a subject classification or encoding scheme. |
| Format | The content MUST conform to the requirements of the vocabulary. |
| Optionality | Required if a vocabulary is used; otherwise MUST NOT be used. |
| Examples | See element. |

### title (course context)

catalog >> provider >> course >> **title**

|  |  |  |
| --- | --- | --- |
| Element | Name: title | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Name of the course | |
| Format | Plain text using title case. The course title SHOULD NOT include a qualification abbreviation or awarding body acronym or name.  Max: 255 characters | |
| Optionality | Mandatory | |
| Parent | course | |
| Children | None | |
| Attributes | [lang](#_xml:lang). | |
| Examples | <dc:title>Starting with XCRI-CAP</dc:title> | |
| Comments | Multiple titles are permitted in the XCRI-CAP 1.2 standard. However, this data specification does not offer a means of differentiating between multiple titles. Therefore one and only one title is mandated, and it must be in a common format for the rest of the community. Further formats for course title will be discussed, so that different ones can be consumed more easily.  Second and subsequent titles can be provided in additional languages, using the xml:lang attribute to denote the languages. | |

### type (course context)

catalog >> provider >> course >> **type**

|  |  |  |
| --- | --- | --- |
| Element | Name: type | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | A grouping of similar courses in terms of target audience | |
| Format | A classification, encoding scheme or other vocabulary. | |
| Optionality | Optional; may be PREFERRED for some communities of practice  Max: 50 characters | |
| Parent | course | |
| Children | None | |
| Attributes | None | |

### url (course context)

catalog >> provider >> course >> **url**

|  |  |  |
| --- | --- | --- |
| Element | Name: url | Namespace: http://purl.org/net/mlo |
| Description | The URL of the course | |
| Format | The content MUST conform to a URI as in IETF RFC 3986. A cool URI is PREFERRED. | |
| Optionality | Preferred; zero or one | |
| Parent | course | |
| Children | None | |
| Attributes | None | |
| Examples | <mlo:url>http://www.myUni.ac.uk/courses/A101/</mlo:url> | |
| Comments | Feeds SHOULD use the url element even if the URL is given as an identifier, because aggregators might use this element for the specific purpose of linking to the provider's website. | |

## 

## Elements by core element: qualification

### Core Element: qualification

catalog >> provider >> course >> **qualification**

|  |  |  |
| --- | --- | --- |
| Element | Name: qualification | Namespace: http://purl.org/net/mlo |
| Description | Holds the data relating to a named formal recognition of achievement or competence (award) certified by an awarding body that can result from studying a course. | |
| Format | MUST contain the mandatory elements and MAY contain the other elements as specified in children below. MAY also contain other elements conforming or strictly conforming to the XCRI-CAP 1.2 specification. | |
| Optionality | Mandatory if course leads to award of a qualification; otherwise do not use. | |
| Parent | Course | |
| Children | [abbr](#_abbr) (optional)  [accreditedBy](#_accreditedBy) (optional)  [awardedBy](#_awardedBy) (mandatory)  [description](#_description_(qualification_context)) (optional)  [description, professionalStatus](#_description_(qualification_context)_1) (optional)  [educationLevel](#_educationLevel) (optional)  [identifier](#_identifier_(qualification_context)) (preferred)  [title](#_title_(qualification_context)) (mandatory)  [url](#_url_(qualification_context)) (optional) | |
| Attributes | None | |
| Examples | See sample XCRI-CAP 1.2 example file: <http://www.xcri.co.uk/technical-implementation/272-sample-xcri-cap-12-instance-file-for-the-open-university.html>. This file will be replaced or enhanced by specific example files relating to communities of practice. | |

### abbr

catalog >> provider >> course >> qualification >> **abbr**

|  |  |  |
| --- | --- | --- |
| Element | Name: abbr | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Abbreviation used as a shortened form of the qualification awarded | |
| Format | Plain text  Max: 25 characters | |
| Optionality | Optional | |
| Parent | course | |
| Children | None | |
| Attributes | None | |
| Examples | <abbr>BA (Hons)</abbr> | |
| Comments | The abbreviation may be specific to a particular Awarding Body or may be common across the sector. | |

### accreditedBy

catalog >> provider >> course >> qualification >> **accreditedBy**

|  |  |  |
| --- | --- | --- |
| Element | Name: accreditedBy | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | The common name of an organisation that accredits the qualification | |
| Format | Plain text  Max: 100 characters | |
| Optionality | Optional | |
| Parent | qualification | |
| Children | None | |
| Attributes | None | |
| Examples | <accreditedBy>British Accreditation Council</accreditedBy> | |

### awardedBy

catalog >> provider >> course >> qualification >> **awardedBy**

|  |  |  |
| --- | --- | --- |
| Element | Name: awardedBy | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | The common name of the awarding body | |
| Format | Plain text  Max: 100 characters | |
| Optionality | Mandatory | |
| Parent | qualification | |
| Children | None | |
| Attributes | None | |
| Examples | Open University; Edexcel | |

### description (qualification context)

catalog >> provider >> course >> qualification >> **description**

|  |  |  |
| --- | --- | --- |
| Element | Name: description | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | General summary of the nature of the qualification | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters | |
| Optionality | Optional; if used: zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | qualification | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href). | |
| Comments | Safe use of XHTML: See the wiki section on [Security Considerations](http://www.xcri.org/wiki/index.php/XCRI_CAP_1.2#Security_Considerations) for guidance. | |

### description (qualification context), professionalStatus

catalog >> provider >> course >> qualification >> **description**

|  |  |  |
| --- | --- | --- |
| Element | Name: description | Namespace: <http://purl.org/dc/elements/1.1/> |
| Description | Description of any professional standing of the qualification, including reference to specific professional bodies. | |
| Format | As for description, but MUST refer to professionalStatus extension in http://www.xcri.co.uk namespace (see example).  One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   Max: 4,000 characters | |
| Optionality | Optional; if used: zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | qualification | |
| Children | If XHTML is used, MUST have XHTML child elements; see: <http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd>. Otherwise none. | |
| Attributes | [lang](#_xml:lang); [href](#_href); xsi:type="http://xcri.co.uk:professionalStatus" | |
| Examples | <dc:description xsi:type="http://xcri.co.uk:professionalStatus”>On graduation you may be eligible to apply (via an appropriate engineering institution) to the Engineering Council (ECUK) for registration as Incorporated Engineer.</dc:description> | |
| Comments | Safe use of XHTML: See the wiki section on [Security Considerations](http://www.xcri.org/wiki/index.php/XCRI_CAP_1.2#Security_Considerations) for guidance. | |

### educationLevel

catalog >> provider >> course >> qualification >> **educationLevel**

|  |  |  |
| --- | --- | --- |
| Element | Name: educationLevel | Namespace: http://purl.org/dc/terms/ |
| Description | Information about the progression through an educational or training context represented by the qualification | |
| Format | Plain text  A controlled list of terms (vocabulary) MAY be used.  Max: 50 characters | |
| Optionality | Optional; if used: zero or one in a single language; multiple permitted to enable information in more than one language | |
| Parent | qualification | |
| Children | None | |
| Attributes | None | |
| Examples | <dcterms:educationLevel>Undergraduate</dcterms:educationLevel>  <dcterms:educationLevel>Postgraduate</dcterms:educationLevel> | |
| Comments | MAY describe a position within an education level framework, if this is not contained with the credit element. For this purpose a vocabulary may be appropriate. | |

### identifier (qualification context)

catalog >> provider >> course >> qualification >> **identifier**

|  |  |  |
| --- | --- | --- |
| Element | Name: identifier | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the qualification | |
| Format | Plain text  MAY be a URI. | |
| Optionality | Preferred; zero or one | |
| Parent | course | |
| Children | None | |
| Attributes | None | |
| Examples | <dc:identifier>http://www.myUni.ac.uk/qualifications/BA\_History</dc:identifier> | |
| Comments | It is possible that Awarding Bodies will have permanent URLs for the qualifications they award; these would be preferable identifiers, but it is accepted that they may be difficult to collect, so internal identifiers are a practical alternative.  Communities of practice (for example FE Colleges) may wish to use identifiers from central information systems such as the LAD/LARA/QAN services. Type definitions for these identifiers can be added to the Course Data Programme schema on request. | |

### title (qualification context)

catalog >> provider >> course >> qualification >> **title**

|  |  |  |
| --- | --- | --- |
| Element | Name: title | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Full official name of the qualification using standard abbreviations if used in official documentation | |
| Format | Plain text using title case  Max: 255 characters | |
| Optionality | Mandatory; one and only one | |
| Parent | course | |
| Children | None | |
| Attributes | [lang](#_xml:lang) | |
| Examples | <dc:title>BA Honours in History</dc:title>  <dc:title>BA (Hons) History</dc:title>  <dc:title>Bachelor of Arts in History with Honours</dc:title> | |

### url (qualification context)

catalog >> provider >> course >> qualification >> **url**

|  |  |  |
| --- | --- | --- |
| Element | Name: url | Namespace: http://purl.org/net/mlo |
| Description | The URL of the qualification | |
| Format | The content MUST conform to a URI as in IETF RFC 3986. A cool URI is PREFERRED. | |
| Optionality | Optional | |
| Parent | qualification | |
| Children | None | |
| Attributes | None | |
| Examples | <mlo:url>http://www.myUni.ac.uk/qualifications/MSc/</mlo:url> | |

## Elements by core element: presentation

### Core Element: presentation

catalog >> provider >> course >> **presentation**

|  |  |  |
| --- | --- | --- |
| Element | Name: presentation | Namespace: <http://xcri.org/profiles/1.2/catalog> |
| Description | Holds the data relating to an instance of the learning opportunity. | |
| Format | MUST contain the mandatory elements and MAY contain the other elements as specified in children below. MAY also contain other elements conforming or strictly conforming to the XCRI-CAP 1.2 specification. | |
| Optionality | Preferred; zero, one or more  Presentation will usually be included. However, there may be circumstances in which a course can be advertised with no presentations, so that a clear picture can be given of provision, for example if a course runs only every two years. | |
| Parent | course | |
| Children | [abstract](#abstract) (preferred/inherited)  [age](#_age) (optional)  [applicationProcedure](#applicationProcedure) (optional/inherited)  [applyFrom](#_applyFrom) (optional)  [applyTo](#_applyTo) (preferred)  [applyUntil](#_applyUntil) (optional)  [assessment](#assessment) (optional/inherited)  [attendanceMode](#_attendanceMode) (preferred)  [attendancePattern](#_attendancePattern) (preferred)  [cost](#_cost) (optional)  [description](#_description_(presentation_context)) (preferred/inherited)  [duration](#_duration) (preferred)  [end](#_end) (optional)  [identifier](#_identifier_(presentation_context)) (preferred)  [languageOfAssessment](#_languageOfAssessment) (optional)  [languageOfInstruction](#_languageOfInstruction) (optional)  [learningOutcome](#learningOutcome) (optional/inherited)  [objective](#objective) (optional/inherited)  [places](#_places) (optional)  [prerequisite](#prerequisite) (optional/inherited)  [regulations](#regulations) (optional/inherited)  [start](#_start) (mandatory)  [studyMode](#_studyMode) (preferred)  [subject](#_subject_(presentation_context)) (optional/inherited)  [title](#_title_(presentation_context)) (optional/inherited)  [url](#_url_(presentation_context)) (optional/inherited)  [venue](#_venue) (mandatory for attendanceMode = Campus; otherwise optional) | |
| Attributes | None | |
| Examples | See sample XCRI-CAP 1.2 example file: <http://www.xcri.co.uk/technical-implementation/272-sample-xcri-cap-12-instance-file-for-the-open-university.html>. This file will be replaced or enhanced by specific example files relating to communities of practice. | |

### abstract (presentation context)

catalog >> provider >> course >> presentation >> **abstract**

|  |  |  |
| --- | --- | --- |
| Element | Name: abstract | Namespace: http://xcri.org/profiles/1.2/catalog |
| See [abstract element](#abstract) in Common Descriptive Elements sections. | | |

### age

catalog >> provider >> course >> presentation >> **age**

|  |  |  |
| --- | --- | --- |
| Element | Name: age | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | The intended age range for which the presentation is suitable | |
| Format | Structured text as given in Values  The value of this element MUST be one of:   * any * not known * x-y * x+   where x and y MUST be non-negative integers representing an age in years. | |
| Optionality | Optional; zero or one | |
| Parent | presentation | |
| Children | None | |
| Attributes | None | |
| Examples | <age>any</age>  <age>17+</age>  <age>14-19</age> | |

### applicationProcedure (presentation context)

catalog >> provider >> course >> presentation >> **applicationProcedure**

|  |  |  |
| --- | --- | --- |
| Element | Name: applicationProcedure | Namespace: http://xcri.org/profiles/1.2/catalog |
| See [applicationProcedure element](#applicationProcedure) in Common Descriptive Elements sections. | | |

### applyFrom

catalog >> provider >> course >> presentation >> **applyFrom**

|  |  |  |
| --- | --- | --- |
| Element | Name: applyFrom | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | The date from which applications can be accepted for the presentation | |
| Format | Plain human-readable text for the element  ISO 8601 date-time for the dtf attribute | |
| Optionality | Optional; zero to one | |
| Parent | presentation | |
| Children | None | |
| Attributes | dtf | |
| Examples | <applyFrom dtf="2012-04-09">Start of Spring Term</applyFrom> | |

#### Attributes of applyFrom

##### dtf

|  |  |
| --- | --- |
| Attribute | Name: dtf |
| See [dtf element in start element](#dtfAttribute). | |

### applyTo

catalog >> provider >> course >> presentation >> **applyTo**

|  |  |  |
| --- | --- | --- |
| Element | Name: applyTo | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | A URL to further information about, or an online application system for, the presentation. | |
| Format | The content MUST conform to a URI as in IETF RFC 3986. | |
| Optionality | Optional; zero to one | |
| Parent | presentation | |
| Children | None | |
| Examples | <applyTo>http://www.open.ac.uk/study/</applyTo> | |

### applyUntil

catalog >> provider >> course >> presentation >> **applyUntil**

|  |  |  |
| --- | --- | --- |
| Element | Name: applyFrom | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | The date after which applications cannot be accepted for the presentation of a course. | |
| Format | Plain human-readable text for the element  ISO 8601 date-time for the dtf attribute | |
| Optionality | Optional; zero to one | |
| Parent | presentation | |
| Children | None | |
| Attributes | dtf | |
| Examples | <applyUntil dtf="2012-04-09">One week before start of course</applyFrom> | |

#### Attributes of applyUntil

##### dtf

|  |  |
| --- | --- |
| Attribute | Name: dtf |
| See [dtf element in start element](#dtfAttribute). | |

### assessment (presentation context)

catalog >> provider >> course >> presentation >> **assessment**

|  |  |  |
| --- | --- | --- |
| Element | Name: assessment | Namespace: http://purl.org/net/mlo |
| See [assessment element](#assessment) in Common Descriptive Elements sections. | | |

### attendanceMode

catalog >> provider >> course >> presentation >> **attendanceMode**

|  |  |  |
| --- | --- | --- |
| Element | Name: attendanceMode | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | The type of location at which the student will undertake the presentation | |
| Format | Plain text in the element  Codes in the identifier attribute  The following key-value pairs SHOULD be used, the key in the identifier attribute, the value in the element:  CM,Campus  DA,Distance with attendance  DS,Distance without attendance  NC,Face-to-face non-campus  MM,Mixed mode  ON,Online (no attendance)  WB,Work-based | |
| Optionality | Preferred; multiple permitted, but normally will be one only | |
| Parent | presentation | |
| Children | None | |
| Attributes | identifier | |
| Examples | <attendanceMode identifier="DA">Distance with attendance</attendanceMode> | |
| Comments | Other vocabularies may be used by communities of practice. | |

#### Attributes of attendanceMode

##### identifier

|  |  |
| --- | --- |
| Attribute | Name: identifier |
| Description | A machine-processable key for the value in the element |
| Format | 2-character code  CM, DA, DS, NC, MM, ON, WB (see element for full vocabulary) |
| Optionality | Preferred |
| Examples | See element |

### attendancePattern

catalog >> provider >> course >> presentation >> **attendancePattern**

|  |  |  |
| --- | --- | --- |
| Element | Name: attendancePattern | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | The period in the day and/or frequency during which attendance at a venue is required (if any) | |
| Format | Plain text in the element  Codes in the identifier attribute  The following key-value pairs SHOULD be used, the key in the identifier attribute, the value in the element:  DT,Daytime  EV,Evening  TW,Twilight  DR,Day/Block release  WE,Weekend  CS,Customised | |
| Optionality | Preferred; multiple permitted, but normally will be one only | |
| Parent | presentation | |
| Children | None | |
| Attributes | identifier | |
| Examples | <attendancePattern identifier="CS">Customised</attendancePattern> | |
| Comments | Other vocabularies may be used by communities of practice. | |

#### Attributes of attendancePattern

##### identifier

|  |  |
| --- | --- |
| Attribute | Name: identifier |
| Description | A machine-processable key for the value in the element |
| Format | 2-character code  DT, EV, TW, DR, WE, CS |
| Optionality | Preferred |
| Examples | See element |

### cost

catalog >> provider >> course >> presentation >> **cost**

|  |  |  |
| --- | --- | --- |
| Element | Name: cost | Namespace: http://purl.org/net/mlo |
| Description | A textual description of the cost associated with obtaining access to the presentation, including reference to bursaries or other special arrangements for specific groups of learners | |
| Format | Plain text  Pound signs (£) SHOULD NOT be used. Instead use the international standard 'GBP' or an entity reference; see <http://www.currency-iso.org/iso_index/iso_tables/iso_tables_a1.htm>.  Max: 4,000 characters | |
| Optionality | Optional; zero or one | |
| Parent | presentation | |
| Children | None | |
| Attributes | None | |
| Examples | <mlo:cost>UK fee: GBP590.00; Ireland fee: GBP975.00; Continental Europe fee: GBP1080.00</mlo:cost> | |
| Comments | This element is a candidate for extension to take into account KIS formats and representation for 'vat', 'net' and 'gross' amounts. | |

### description (presentation context)

catalog >> provider >> course >> presentation >> **description**

|  |  |  |
| --- | --- | --- |
| Element | Name: description | Namespace: http://purl.org/dc/elements/1.1/ |
| See [description element](#_description_(course_context)) in course element section. | | |

### duration

catalog >> provider >> course >> presentation >> **duration**

|  |  |  |
| --- | --- | --- |
| Element | Name: duration | Namespace: http://purl.org/net/mlo |
| Description | Information about how long the presentation will last | |
| Format | Plain human-readable text for the element  ISO 8601 duration-only time interval for the interval attribute  Max: 4,000 characters | |
| Optionality | Preferred; zero to one | |
| Parent | presentation | |
| Children | None | |
| Attributes | interval | |
| Examples | <mlo:duration interval="P3Y">Three years</mlo:duration> | |

#### Attributes of duration

##### interval

|  |  |
| --- | --- |
| Attribute | Name: interval |
| Description | A machine-processable time interval during which the presentation lasts |
| Format | The content MUST comply with the duration-only time interval standard as specified by ISO 8601.  PnYnMnDTnHnMnS |
| Optionality | Optional |
| Examples | P3Y |

### end

catalog >> provider >> course >> presentation >> **end**

|  |  |  |
| --- | --- | --- |
| Element | Name: end | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Information about the end date and / or time of the presentation | |
| Format | Plain human-readable text for the element  ISO 8601 date-time for the dtf attribute | |
| Optionality | Optional; zero to one | |
| Parent | presentation | |
| Children | None | |
| Attributes | dtf | |
| Examples | <end dtf="2012-01-03T22:30:00Z">10:30 in the evening on Tuesday, 3rd January 2011</end> | |

#### Attributes of end

##### dtf

|  |  |
| --- | --- |
| Attribute | Name: dtf |
| See [dtf element in start element](#dtfAttribute). | |

### identifier (presentation context)

catalog >> provider >> course >> presentation >> **identifier**

|  |  |  |
| --- | --- | --- |
| Element | Name: identifier | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the presentation | |
| Format | One of the identifiers MUST be in a URI format as specified below.  The presentation element MUST NOT contain more than one identifier without an explicitly-defined encoding scheme.  An identifier without an explicitly-defined encoding scheme SHOULD be a URI, and the content SHOULD conform to a URI as in IETF RFC 3986.  This element MUST use the Dublin Core Namespace: <http://purl.org/dc/elements/1.1/> | |
| Optionality | Preferred; zero, one or many | |
| Parent | course | |
| Children | None | |
| Attributes | xsi:type (for namespace-based encoding schemes) | |
| Examples | <dc:identifier>http://www.myUni.ac.uk/courses/A101\_Oct2012</dc:identifier> | |
| Comments | See comments under course >> identifier. | |

### languageOfAssessment

catalog >> provider >> course >> presentation >> **languageOfAssessment**

|  |  |  |
| --- | --- | --- |
| Element | Name: languageOfAssessment | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | A language in which the presentation is assessed | |
| Format | A valid language tag according to the [IETF BCP47](http://tools.ietf.org/html/bcp47#appendix-A) specification, using 2-character [ISO 639-1](http://en.wikipedia.org/wiki/List_of_ISO_639-1_codes) codes. A further source of the ISO 639-1 codes is: <http://www.loc.gov/standards/iso639-2/php/English_list.php>.  2-character [ISO 639-1](http://en.wikipedia.org/wiki/ISO_639-1) codes; default 'en' | |
| Optionality | Optional; if not present, then consumers MUST assume that the language of the element is English. | |
| Parent | presentation | |
| Children | None | |
| Attributes | None | |
| Examples | <mlo:languageOfAssessment>en</mlo:languageOfAssessment> | |

### languageOfInstruction

catalog >> provider >> course >> presentation >> **languageOfInstruction**

|  |  |  |
| --- | --- | --- |
| Element | Name: languageOfInstruction | Namespace: http://purl.org/net/mlo |
| Description | A language in which the presentation is available to be taught | |
| Format | A valid language tag according to the [IETF BCP47](http://tools.ietf.org/html/bcp47#appendix-A) specification, using 2-character [ISO 639-1](http://en.wikipedia.org/wiki/List_of_ISO_639-1_codes) codes.  2-character [ISO 639-1](http://en.wikipedia.org/wiki/ISO_639-1) codes; default 'en' | |
| Optionality | Optional; if not present, then consumers MUST assume that the language of the element is English. | |
| Parent | presentation | |
| Children | None | |
| Attributes | None | |
| Examples | <mlo:languageOfInstruction>en</mlo:languageOfInstruction> | |

### learningOutcome (presentation context)

catalog >> provider >> course >> presentation >> **learningOutcome**

|  |  |  |
| --- | --- | --- |
| Element | Name: learningOutcome | Namespace: http://xcri.org/profiles/1.2/catalog |
| See [learningOutcome element](#learningOutcome) in Common Descriptive Elements sections. | | |

### objective (presentation context)

catalog >> provider >> course >> presentation >> **objective**

|  |  |  |
| --- | --- | --- |
| Element | Name: objective | Namespace: http://purl.org/net/mlo |
| See [objective element](#objective) in Common Descriptive Elements sections. | | |

### places

catalog >> provider >> course >> presentation >> **places**

|  |  |  |
| --- | --- | --- |
| Element | Name: places | Namespace: http://purl.org/net/mlo |
| Description | A textual description of the number of places available for participants in the presentation. MAY be a simple integer. | |
| Format | Plain text  Max: 4,000 characters | |
| Optionality | Optional; zero or one | |
| Parent | presentation | |
| Children | None | |
| Attributes | None | |
| Examples | <mlo:places>10</mlo:places> | |

### prerequisite (presentation context)

catalog >> provider >> course >> presentation >> **prerequisite**

|  |  |  |
| --- | --- | --- |
| Element | Name: objective | Namespace: http://purl.org/net/mlo |
| See [prerequisite element](#prerequisite) in Common Descriptive Elements sections. | | |

### regulations (presentation context)

catalog >> provider >> course >> presentation >> **regulations**

|  |  |  |
| --- | --- | --- |
| Element | Name: objective | Namespace: http://xcri.org/profiles/1.2/catalog |
| See [regulations element](#regulations) in Common Descriptive Elements sections. | | |

### start

catalog >> provider >> course >> presentation >> **start**

|  |  |  |
| --- | --- | --- |
| Element | Name: start | Namespace: http://purl.org/net/mlo |
| Description | Information about the start date and / or time of the presentation | |
| Format | Plain human-readable text for the element  ISO 8601 date-time for the dtf attribute | |
| Optionality | Mandatory; one and only one | |
| Parent | presentation | |
| Children | None | |
| Attributes | dtf | |
| Examples | <mlo:start dtf="2012-01-03">Tuesday, 3rd January 2011</mlo:start> | |
| Comments | If a definite start date is known, it MUST be placed in the dtf attribute. | |

#### Attributes of start

##### dtf

|  |  |
| --- | --- |
| Attribute | Name: dtf |
| Description | The date and time at which the presentation begins |
| Format | The content MUST comply with date and time format for ISO 8601.  YYYY-MM-DDThh:mm:ss |
| Optionality | Optional |
| Examples | 2011-12-21T17:45:00Z |

### studyMode

catalog >> provider >> course >> presentation >> **studyMode**

|  |  |  |
| --- | --- | --- |
| Element | Name: studyMode | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | A general expression of the overall amount of the student's time that is devoted to the learning opportunity, as defined by the provider | |
| Format | Plain text in the element  Codes in the identifier attribute  The following key-value pairs SHOULD be used, the key in the identifier attribute, the value in the element:  NK,Not known [DEFAULT] The provider has not supplied the information.  FL,Flexible Full time or part time dependent on the learner.  FT,Full time The learning opportunity is the learner's main activity.  PF,Part of a full time programme The learning opportunity is a component of a set of learning opportunities that form the learner's main activity.  PT,Part time The learning opportunity is not the learner's main activity | |
| Optionality | Preferred; zero to one | |
| Parent | presentation | |
| Children | None | |
| Attributes | identifier | |
| Examples | <studyMode identifier="FL">Flexible</studyMode> | |
| Comments | These are mutually exclusive terms, so 'Full time' does not include 'Part of a full time programme'.  Other vocabularies may be used by communities of practice. | |

#### Attributes of studyMode

##### identifier

|  |  |
| --- | --- |
| Attribute | Name: identifier |
| Description | A machine-processable key for the value in the element |
| Format | 2-character code  NK, FL, FT, PF, PT |
| Optionality | Preferred |
| Examples | See element |

### subject (presentation context)

catalog >> provider >> course >> presentation >> **subject**

|  |  |  |
| --- | --- | --- |
| Element | Name: subject | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | The topic of the presentation | |
| See [subject in course element](#_subject_(course_context)_1). If subject is not present it will be inherited from the course element's subject element. | | |

### title (presentation context)

catalog >> provider >> course >> presentation >> **title**

|  |  |  |
| --- | --- | --- |
| Element | Name: title | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Name of the presentation | |
| See [title in course element](#_title_(course_context)). If title is not present it will be inherited from the course element's title element. | | |

### url (presentation context)

catalog >> provider >> course >> presentation >> **url**

|  |  |  |
| --- | --- | --- |
| Element | Name: url | Namespace: http://purl.org/net/mlo |
| Description | The URL of the presentation | |
| See [url in course element](#_url_(course_context)). Feeds SHOULD use the url element even if the URL is given as an identifier, because aggregators might use this element for the specific purpose of linking to the provider's website. If url is not present it will be inherited from the course element's url element. | | |

### venue

catalog >> provider >> course >> presentation >> **venue**

|  |  |  |
| --- | --- | --- |
| Element | Name: venue | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Holds the information relating to the main locations where a learning opportunity is presented. | |
| Format | A single provider element as the only child element | |
| Optionality | Mandatory (at least one) for attendanceMode = Campus; otherwise optional | |
| Parent | presentation | |
| Children | provider | |
| Attributes | None | |
| Example | This example is provided to show the relationship between course, presentation and venue – it is not complete and accurate XCRI-CAP syntax. In this example, the first presentation is FT and the learner attends partly at Stroud (the main venue) and partly at Chippenham (a subsidiary venue); the second presentation is PT and all taken at Stroud.  <course>  <dc:identifier>Course1</dc:identifier>  <presentation>  <dc:identifier>P1 - 2011</dc:identfier>  <dc:description>Attendance is at the Stroud Campus for years 1 and 2, and at Chippenham Campus for year 3.</dc:description>  <studyMode identifier="FT">Full time</studyMode>  <venue>  <provider>  <dc:title>Stroud Campus</dc:title>  </provider>  </venue>  <venue>  <provider>  <dc:location>Chippenham Campus</dc:location>  </provider>  </venue>  </presentation>  <presentation>  <dc:identifier>P2 - 2012</dc:identfier>  <dc:description>Attendance is at the Stroud Campus (part time) for the whole period of study.</dc:description>  <studyMode identifier="PT">Part time</studyMode>  <venue>  <provider>  <dc:title>Stroud Campus</dc:title>  </provider>  </venue>  </presentation>  </course> | |
| Comments | The venue element SHOULD be used to describe the physical venue or venues of the presentation. This MAY be a sub-organisation of the provider of the presentation (such as a department, school or campus), or it MAY be a third party or external organisation.  If a single presentation has multiple venues (for example a programme in which the first year is at one campus and subsequent years are at a different campus), this information MAY optionally be included in the description element of the presentation. The first venue element SHOULD refer specifically to the main location of the learning.  If information about non-specific locations (such as client premises or physical locations not yet known) is required, this information SHOULD be included in the description element of the presentation, AND an appropriate attendanceMode element SHOULD be used.  The level of detail given in the venue element will depend on the type of course. For a long programme, a campus may be appropriate, for a short course, it may be more appropriate to specify a room or building within a campus. | |

### provider (venue context)

catalog >> provider >> course >> presentation >> venue >> **provider**

|  |  |  |
| --- | --- | --- |
| Element | Name: provider | Namespace: http://xcri.org/profiles/1.2/catalog |
| Description | Holds the information relating to the venue | |
| Format | MUST contain the mandatory elements and MAY contain the other elements as specified in children below. Elements not listed under children MUST NOT be used in this element. | |
| Optionality | Mandatory; one and only one | |
| Parent | venue | |
| Children | description (optional)  identifier (mandatory)  location (mandatory)  title (mandatory)  url (optional) | |
| Attributes | None | |
| Examples | See sample XCRI-CAP 1.2 example file: <http://www.xcri.co.uk/KbLibrary/SampleOUXCRI-CAP1_2.xml>. This file will be replaced or enhanced by specific example files relating to communities of practice. | |

### description (venue context)

catalog >> provider >> course >> presentation >> venue >> provider >> **description**

|  |  |  |
| --- | --- | --- |
| Element | Name: description | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | General textual information about the venue and its facilities | |
| For remaining items, see [description element](#_description_(provider_context)) in provider section. | | |

### identifier (venue context)

catalog >> provider >> course >> presentation >> venue >> provider >> **identifier**

|  |  |  |
| --- | --- | --- |
| Element | Name: identifier | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the venue | |
| For remaining items, see [identifier element](#_identifier_(provider_context)) in provider section. | | |

### location (venue context)

catalog >> provider >> course >> presentation >> venue >> provider >> **location**

|  |  |  |
| --- | --- | --- |
| Element | Name: location | Namespace: http://purl.org/net/mlo |
| Description | Holds information about the spatial location of the venue. It contains the venue's postal address and optionally further data giving its geographical location. | |
| Format | MUST contain the mandatory elements and MAY contain the other elements as specified in children below. Elements not listed under children MUST NOT be used in this element. | |
| Optionality | Mandatory; one and only one | |
| Parent | provider | |
| Children | address (mandatory)  email (preferred)  fax (optional)  phone (preferred)  postcode (mandatory)  town (optional) | |
| Attributes | None | |

### address (venue context)

catalog >> provider >> course >> presentation >> venue >> provider >> location >> **address**

|  |  |  |
| --- | --- | --- |
| Element | Name: address | Namespace: http://purl.org/net/mlo |
| Description | Specifies the geographical or spatial location of the venue | |
| Format | More than one set of different valid formats MAY be used. Each set that is not a postal address MUST use an explicitly-defined encoding scheme.  Postal address: there MUST be one set of address elements that has no encoding scheme, and this set of address elements MUST consist of the sequential lines of the official postal address (except for the postcode), so that these elements can be combined with the <postcode> element to form the full postal address. Each postal address line must be contained in its own <address> element. The postal address elements must be ordered so that the sequence in the document will generate successive postal address lines.  Geo-location encoding: latitude and longitude MAY be indicated in address elements, using an additional encoding scheme (see examples). | |
| Optionality | Mandatory; at least one set | |
| Parent | location | |
| Children | None | |
| Examples | <mlo:address>Hallward Library</mlo:address>  <mlo:address>University Park</mlo:address>  <mlo:address>Nottingham</mlo:address>  <mlo:postcode>NG7 2RD</mlo:postcode>  <mlo:address xsi:type="geo:lat">-123.7</mlo:address>  <mlo:address xsi:type="geo:long">54</mlo:address> | |
| Comments | Use of the street and town elements in postal addresses is deprecated, as these elements do not promote data integrity when data is exchanged. | |

### email

catalog >> provider >> course >> presentation >> venue >> provider >> location >> **email**

|  |  |  |
| --- | --- | --- |
| Element | Name: email | Namespace: http://purl.org/net/mlo |
| Description | Email address of the venue | |
| Optionality | Preferred; zero or one | |
| For remaining items, see [email element](#_email) in provider section. | | |

### fax

catalog >> provider >> course >> presentation >> venue >> provider >> location >> **fax**

|  |  |  |
| --- | --- | --- |
| Element | Name: fax | Namespace: http://purl.org/net/mlo |
| Description | Fax number of the venue | |
| For remaining items, see [fax element](#_fax) in provider section. | | |

### phone

catalog >> provider >> course >> presentation >> venue >> provider >> location >> **phone**

|  |  |  |
| --- | --- | --- |
| Element | Name: phone | Namespace: http://purl.org/net/mlo |
| Description | Telephone number of the venue | |
| Optionality | Preferred; zero or one | |
| For remaining items, see [phone element](#_phone) in provider section. | | |

### postcode (venue context)

catalog >> provider >> course >> presentation >> venue >> provider >> location >> **postcode**

|  |  |  |
| --- | --- | --- |
| Element | Name: postcode | Namespace: http://purl.org/net/mlo |
| Description | Full official postcode of the address of the venue | |
| Format | Between 2 and 4 characters:  (one or two letters)(number between 0 and 99)(zero or one letter)  space  3 characters: (single digit)(two letters)  Valid UK postcodes  Max: 8 characters | |
| Optionality | Mandatory; one and only one | |
| Parent | location | |
| Children | None | |
| Attributes | None | |
| Examples | M1 1AA, B33 8TH, CR2 6XH, DN55 1PT, W1A 1HQ, EC1A 1BB | |
| Comments | Used as the final part of the UK postal address, combined with addressLine typed address elements. | |

### town

catalog >> provider >> course >> presentation >> venue >> provider >> location >> **town**

|  |  |  |
| --- | --- | --- |
| Element | Name: town | Namespace: http://purl.org/net/mlo |
| Description | The name of the town or city in which the venue is situated. | |
| Format | Plain text with first letter of each word upper case, the remainder lower case  Max: 50 characters | |
| Optionality | Optional; zero or one | |
| Parent | location | |
| Children | None | |
| Attributes | None | |
| Examples | <town>Stroud</town> | |
| Comments | This is not part of the postal address, for which see the address element. This element might be used by information systems for geographical searching. | |

### title (venue context)

catalog >> provider >> course >> presentation >> venue >> provider >> **title**

|  |  |  |
| --- | --- | --- |
| Element | Name: title | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Common name of the venue | |
| Format | Plain text using title case  Max: 255 characters | |
| Optionality | Mandatory; one and only one | |
| Parent | provider | |
| Children | None | |
| Attributes | [lang](#_xml:lang). | |
| Examples | <dc:title>Priory Campus</dc:title>  <dc:title>The Old Refectory, Priory Campus</dc:title> | |
| Comments | The title of the venue may be a campus name, building name or a combination, including room number or name that will enable the learners to identify the location.  Practice may vary dependent on type of course. For a long course it will usually be sufficient to state the campus. For a short course, a building or room plus campus name may be more appropriate. | |

### url (venue context)

catalog >> provider >> course >> presentation >> venue >> provider >> **url**

|  |  |  |
| --- | --- | --- |
| Element | Name: url | Namespace: http://purl.org/net/mlo |
| Description | The URL of the web page of the venue | |
| For remaining items, see [url element](#_url_(provider_context)) in provider section. | | |

## 

## Elements by core element: credit

### Core Element: credit

catalog >> provider >> course >> **credit**

|  |  |  |
| --- | --- | --- |
| Element | Name: credit | Namespace: http://purl.org/net/mlo |
| Description | An account of the credits that can be obtained from completion of a course | |
| Format | MUST contain the mandatory elements and MAY contain the other elements as specified in children below. MAY also contain other elements conforming or strictly conforming to the XCRI-CAP 1.2 specification. | |
| Optionality | Optional; zero, one or more | |
| Parent | course | |
| Children | level (mandatory)  scheme (preferred)  value (mandatory) | |
| Attributes | None | |
| Examples | Sample XCRI-CAP 1.2 example file: <http://www.xcri.co.uk/technical-implementation/272-sample-xcri-cap-12-instance-file-for-the-open-university.html>. This file will be replaced or enhanced by specific example files relating to communities of practice. | |
| Comments | A separate credit element SHOULD be used to represent credits for each relevant credit scheme. | |

### level

catalog >> provider >> course >> credit >> **level**

|  |  |  |
| --- | --- | --- |
| Element | Name: level | Namespace: http://purl.org/net/cm |
| Description | The point in a credit scheme or framework at which credits are awarded | |
| Format | Plain text  Max: 50 characters | |
| Optionality | Mandatory; one and only one | |
| Parent | credit | |
| Children | None | |
| Attributes | None | |
| Examples | <credit:level>6</credit:level> | |
| Comments | Level should be interpreted in the context of the scheme of the credit resource to which the level pertains. Level may contain any literal value, however implementations should consider the use of URIs to represent levels unambiguously, particularly where more than one type of level can be associated with a particular credit scheme. | |

### scheme

catalog >> provider >> course >> credit >> **scheme**

|  |  |  |
| --- | --- | --- |
| Element | Name: scheme | Namespace: http://purl.org/net/cm |
| Description | The name of the credit scheme under which credits are awarded | |
| Format | Plain text  Max: 255 characters | |
| Optionality | Preferred; zero or one | |
| Parent | credit | |
| Children | None | |
| Attributes | None | |
| Examples | <credit:scheme>The Open University</credit:scheme>  <credit:scheme>ECTS</credit:scheme> | |

### value

catalog >> provider >> course >> credit >> **value**

|  |  |  |
| --- | --- | --- |
| Element | Name: value | Namespace: http://purl.org/net/cm |
| Description | The number of credits awarded | |
| Format | Positive integer | |
| Optionality | Mandatory; one and only one | |
| Parent | credit | |
| Children | None | |
| Attributes | None | |
| Examples | <credit:value>120</credit:value> | |

# Appendix A:

The XCRI-CAP terms schema lists a number of further refinements for the description element that are occasionally used. The terms schema can be found here: <http://www.xcri.co.uk/bindings/xcri_cap_terms_1_2.xsd>.

Each of these take the following specification:

|  |  |
| --- | --- |
| Format | Plain text content; keywords should be separated by commas  This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:xxx", where 'courseDataProgramme' is the local name for the namespace <http://www.xcri.co.uk>, and 'xxx' is the name of the refinement.  Max: 4000 characters |
| Optionality | Optional |
| Parent | course |
| Children | None |
| Attributes | [lang](#_xml:lang)  xsi:type (as specified in Format) |

### careerOutcome, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: careerOutcome | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify career outcomes for a course of study | | |
| Examples | <description xsi:type="xcriTerms: careerOutcome">Study of the arts and humanities requires an understanding of human activities in diverse cultural environments and in very different historical circumstances. The breadth of study and the range of cultural texts and objects analysed, combined with training in clear thinking and communication, make this degree course relevant to a wide variety of careers, including…</description> | | |
| Comments |  | | |

### contactHours, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: contactHours | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify the number and style of contact hours that a learner should expect on a course of study | | |
| Examples | <description xsi:type="xcriTerms: contactHours">Time in lectures, seminars and similar: 14%</description> | | |
| Comments |  | | |

### contactPattern, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: contactPattern | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify the style of contact that a learner would receive on a course of study | | |
| Examples | <description xsi:type="xcriTerms: contactHours">Lectures: 50%; Seminars: 25%; Tutorials: 25%</description> | | |
| Comments |  | | |

### events, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: events | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify events relevant to a course of study, such as open days | | |
| Examples | <description xsi:type="xcriTerms: events" href="<http://www.open.edu/openlearn/whats-on/ou-on-the-bbc-the-material-world-2007-series>"/> | | |
| Comments |  | | |

### leadsTo, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: leadsTo | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to describe opportunties likely to flow from a course of study, such as opportunities for further study (course articulations) | | |
| Examples |  | | |
| Comments |  | | |

### policy, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: policy | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify policies relevant to a course of study, such as diversity of adjustments for disability | | |
| Examples |  | | |
| Comments |  | | |

### providedResource, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: providedResource | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to clarify resources that would be provided to learners by the institution | | |
| Examples |  | | |
| Comments |  | | |

### requiredResource, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: requiredResource | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to clarify resources that the learner must provide in order to engage in a course of study | | |
| Examples |  | | |
| Comments |  | | |

### specialFeature, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: specialFeature | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to highlight special features of a course of study | | |
| Examples |  | | |
| Comments |  | | |

### support, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: support | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify support facilities available to learners | | |
| Examples |  | | |
| Comments |  | | |

### structure, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: structure | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to provide an overview of the module composition of a course of study | | |
| Examples |  | | |
| Comments |  | | |

### studyHours, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: studyHours | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify hours of study expected of a learner for successful completion | | |
| Examples |  | | |
| Comments |  | | |

### teachingStrategy, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: teachingStrategy | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify the teaching strategies that will be employed on a course of study | | |
| Examples |  | | |
| Comments |  | | |

### topic, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: topic | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify a syllabus of topics that would be covered in a course of study | | |
| Examples |  | | |
| Comments |  | | |

# Appendix B: Course Data Programme schema refinements

This schema has been designed specifically for the purposes of the Course Data Programme. The Course Data Validator will validate against this schema and the Data Definitions. Refined elements are defined below.

### ukprn, refinement of identifier (provider context)

catalog >> provider >> **identifier**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: identifier | Refinement: ukprn | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the provider, using the UK Provider Reference Number (UKPRN). | | |
| Format | Element content MUST be the 8 digit UKPRN for the provider.  This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:ukprn", where 'courseDataProgramme' is the local name for the namespace http://www.xcri.co.uk  This element MUST use the Dublin Core Namespace: <http://purl.org/dc/elements/1.1/>  8 digit number | | |
| Optionality | Preferred | | |
| Parent | provider | | |
| Children | None | | |
| Attributes | xsi:type (as specified in Format) | | |
| Examples | <dc:identifier xsi:type="http://xcri.co.uk:ukprn">12345678</dc:identifier> | | |
| Comments | Every learning provider should have a UKPRN, available from the UK Register of Learning Providers at <http://www.ukrlp.co.uk/>. | | |

### ucasInstCode, refinement of identifier (provider context)

catalog >> provider >> **identifier**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: identifier | Refinement: ucasInstCode | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the provider, using the UCAS institution code. | | |
| Format | Element content MUST be the 3 character UCAS institution code.  This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:ucasInstCode", where 'courseDataProgramme' is the local name for the namespace http://www.xcri.co.uk  This element MUST use the Dublin Core Namespace: <http://purl.org/dc/elements/1.1/>  3 character string | | |
| Optionality | Optional | | |
| Parent | provider | | |
| Children | None | | |
| Attributes | xsi:type (as specified in Format) | | |
| Examples | <dc:identifier xsi:type="http://xcri.co.uk:ucasInstCode">A20</dc:identifier> | | |
| Comments | Every UCAS member has a UCAS institution code, which consists of a letter followed by 2 digits. | | |

### internalID, refinement of identifier (course or presentation context)

catalog >> provider >> course >> **identifier**, catalog >> provider >> course >> presentation >> **identifier**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: identifier | Refinement: internalID | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the course or presentation, using a string of characters from the provider's system | | |
| Format | This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:internalID", where 'courseDataProgramme' is the local name for the namespace http://www.xcri.co.uk  This element MUST use the Dublin Core Namespace: <http://purl.org/dc/elements/1.1/>  Max: 50 characters | | |
| Optionality | Optional | | |
| Parent | course, presentation | | |
| Children | None | | |
| Attributes | xsi:type (as specified in Format) | | |
| Examples | <dc:identifier xsi:type="http://xcri.co.uk:internalID">AB101</dc:identifier> | | |
| Comments | This identifier can be any alphanumeric string up to the character limit. | | |

### courseDirectoryID, refinement of identifier (course context)

catalog >> provider >> course >> **identifier**, catalog >> provider >> course >> presentation >> **identifier**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: identifier | Refinement: courseDirectoryID | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the course or presentation, using a 10 digit number from the National Careers Service Course Directory | | |
| Format | This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:courseDirectoryID", where 'courseDataProgramme' is the local name for the namespace http://www.xcri.co.uk  This element MUST use the Dublin Core Namespace: <http://purl.org/dc/elements/1.1/>  10 digit number | | |
| Optionality | Optional | | |
| Parent | course, presentation | | |
| Children | None | | |
| Attributes | xsi:type (as specified in Format) | | |
| Examples | <dc:identifier xsi:type="http://xcri.co.uk:courseDirectoryID">1000012345</dc:identifier> | | |
| Comments |  | | |

### ucasCode, refinement of identifier (course or presentation context)

catalog >> provider >> course >> **identifier**, catalog >> provider >> course >> presentation >> **identifier**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: identifier | Refinement: ucasCode | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | An unambiguous reference to the course or presentation, using 4 character UCAS course code | | |
| Format | This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:ucasCode", where 'courseDataProgramme' is the local name for the namespace http://www.xcri.co.uk  This element MUST use the Dublin Core Namespace: <http://purl.org/dc/elements/1.1/>  4 character string. | | |
| Optionality | Optional | | |
| Parent | course, presentation | | |
| Children | None | | |
| Attributes | xsi:type (as specified in Format) | | |
| Examples | <dc:identifier xsi:type="http://xcri.co.uk:ucasCode">G100</dc:identifier> | | |
| Comments | Validation is only that the code is a valid 4 character string. No attempt is made in the schema to validate using the internal rules for UCAS codes.  Also note that UCAS codes are not necessarily unique within a provider's own systems, so for some providers this code may not be suitable as a course identifier. | | |

### metadataKeywords, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: metadataKeywords | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement used to specify metadata keywords relating to the course | | |
| Format | Plain text content; keywords should be separated by commas  This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:metadataKeywords", where 'courseDataProgramme' is the local name for the namespace http://www.xcri.co.uk  Max: 4000 characters | | |
| Optionality | Optional | | |
| Parent | course | | |
| Children | None | | |
| Attributes | [lang](#_xml:lang)  xsi:type (as specified in Format) | | |
| Examples | A174, Start writing fiction, Undergraduate course, Open University | | |
| Comments |  | | |

### targetAudience, description refinement (course context)

catalog >> provider >> course >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: targetAudience | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to specify the target audience of the course | | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:targetAudience", where 'courseDataProgramme' is the local name for the namespace http://www.xcri.co.uk  Max: 4,000 characters | | |
| Optionality | Optional | | |
| Parent | course | | |
| Children | None | | |
| Attributes | [lang](#_xml:lang), href  xsi:type as specified in Format | | |
| Comments |  | | |

### professionalStatus, description refinement (qualification context)

catalog >> provider >> course >> qualification >> **description**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: description | Refinement: professionalStatus | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | Description refinement typically used to describe the professional status from successful completion of a qualification | | |
| Format | One of the following:   * Empty; when the href attribute contains a URL linking to the information * Plain text content; when content is short and unstructured * Valid XHTML 1.0 content; when preservation of the text formatting is important   This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:professionalStatus", where 'courseDataProgramme' is the local name for the namespace http://www.xcri.co.ukMax: 4,000 characters | | |
| Optionality | Optional | | |
| Parent | qualification | | |
| Children | None | | |
| Attributes | [lang](#_xml:lang), href  xsi:type as specified in Format | | |
| Comments | This data may be suitable for use in the Higher Education Achievement Report | | |

### JACS3, subject (course context)

### LDCS3, subject (course context)

### SSAC2001, subject (course context)

catalog >> provider >> course >> **subject**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: subject | Refinement: JACS3 or LDCS3 or SSAC2001 | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | The topic of the course described by a key-value pair from JACS3, LDCS3 or SSAC2001 classification schemes | | |
| Format | Plain text that MUST be a human-readable value from the classification. Machine-readable codes go in the @identifier attribute.  This element MUST use an xsi:type attribute of the form 'xsi:type="courseDataProgramme:xxx", where 'courseDataProgramme' is the local name for the namespace <http://www.xcri.co.uk> and 'xxx' is one of the three named classifications.  Max: 100 characters | | |
| Optionality | Optional | | |
| Parent | course | | |
| Children | None | | |
| Attributes | xsi:type as specified in Format  identifier | | |
| Examples | <dc:subject xsi:type="courseDataProgramme:JACS3" identifier="V100">History</dc:subject> | | |
| Comments | Classifications or encoding schemes MUST be specified in an @xsi:type attribute.  For classifications or encoding schemes with key-value pairs, the key MUST be stated in the @identifier attribute and the value in the subject element. | | |

### courseType, courseTypeCPD, CourseTypeGeneral, type (course context)

catalog >> provider >> course >> **type**

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Name: type | Refinement: courseType, courseTypeCPD, CourseTypeGeneral | Namespace: http://purl.org/dc/elements/1.1/ |
| Description | A grouping of similar courses in terms of target audience, permitting simple validation. | | |
| Format | A classification, encoding scheme or other vocabulary.  Max: 50 characters | | |
| Optionality | Optional | | |
| Parent | course | | |
| Children | None | | |
| Attributes | xsi:type as specified in Format. For courseTypeCPD and courseTypeGeneral: identifier. | | |
| Comments | For human-readable terms only, use courseType. For key-value pairs related to CPD courses, use courseTypeCPD, and for other key-value pairs use courseTypeGeneral.  Machine-readable codes go in the @identifier attribute. | | |

1. <http://www.jisc.ac.uk/whatwedo/programmes/elearning/coursedata.aspx> [↑](#footnote-ref-1)
2. <http://www.xcri.org/wiki/index.php/XCRI_CAP_1.2> [↑](#footnote-ref-2)
3. <http://www.xcri.co.uk/h2-info-models.html> [↑](#footnote-ref-3)
4. <http://validator.xcri.co.uk/> [↑](#footnote-ref-4)
5. Feed Manager: <http://coursedata.k-int.com/FeedManager/>, Discovery page: <http://coursedata.k-int.com/discover/> [↑](#footnote-ref-5)
6. http://www.w3.org/TR/2008/REC-xml-20081126/ [↑](#footnote-ref-6)
7. http://www.ietf.org/rfc/rfc3986.txt [↑](#footnote-ref-7)
8. http://www.iso.org/iso/support/faqs/faqs\_widely\_used\_standards/widely\_used\_standards\_other/date\_and\_time\_format.htm [↑](#footnote-ref-8)
9. http://tools.ietf.org/html/bcp47#appendix-A [↑](#footnote-ref-9)
10. http://en.wikipedia.org/wiki/List\_of\_ISO\_639-1\_codes [↑](#footnote-ref-10)
11. http://www.w3.org/2002/08/xhtml/xhtml1-strict.xsd [↑](#footnote-ref-11)
12. http://www.ofcom.org.uk/static/archive/oftel/publications/numbering/2003/num\_guide.htm#1b [↑](#footnote-ref-12)
13. http://tools.ietf.org/html/rfc5322 [↑](#footnote-ref-13)
14. http://en.wikipedia.org/wiki/Postcodes\_in\_the\_United\_Kingdom [↑](#footnote-ref-14)
15. <http://www.xcri.org/wiki> [↑](#footnote-ref-15)
16. http://www.w3.org/TR/2008/REC-xml-20081126/ [↑](#footnote-ref-16)
17. http://lncn.eu/toolkit [↑](#footnote-ref-17)
18. See various Learning Opportunity related BDM Data Standards here: <http://www.education.gov.uk/escs-isb/standardslibrary?page=2> [↑](#footnote-ref-18)
19. For a reasonably accessible starting point for such issues, refer to <http://en.wikipedia.org/wiki/Character_entity_reference>. For technical references, refer to: <http://www.w3.org/TR/REC-xml/#sec-references> [↑](#footnote-ref-19)
20. <http://www.w3.org/TR/xhtml1/> [↑](#footnote-ref-20)
21. <http://www.xcri.co.uk/bindings/courseDataProgramme.xsd> [↑](#footnote-ref-21)
22. <http://www.xcri.org/forum/> [↑](#footnote-ref-22)
23. See <http://www.nationalarchives.gov.uk/doc/open-government-licence/> [↑](#footnote-ref-23)
24. <http://discovery.ac.uk/files/pdf/Licensing_Open_Data_A_Practical_Guide.pdf> [↑](#footnote-ref-24)
25. <http://linkingyou.blogs.lincoln.ac.uk/2011/04/19/all-recommendations-lead-back-to-cool-uris/> [↑](#footnote-ref-25)
26. <http://www.xcri.co.uk/bindings/courseDataProgramme.xsd> [↑](#footnote-ref-26)
27. <http://www.xcri.co.uk/bindings/courseDataProgramme.xsd> [↑](#footnote-ref-27)
28. See <http://www.ukrlp.co.uk/>. [↑](#footnote-ref-28)
29. <http://www.xcri.co.uk/bindings/courseDataProgramme.xsd> [↑](#footnote-ref-29)
30. <http://linkingyou.blogs.lincoln.ac.uk/2011/04/19/all-recommendations-lead-back-to-cool-uris/> [↑](#footnote-ref-30)
31. <http://linkingyou.blogs.lincoln.ac.uk/2011/04/19/all-recommendations-lead-back-to-cool-uris/> [↑](#footnote-ref-31)