

Harvard Summer School Course Catalog Website

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1.0 Core Stylesheets

The *Harvard Summer School Course Catalog Website* is built around five(5) core .xsl stylesheets that generate the majority of the XHTML for the site. These stylesheets are: viewByGroup.xsl, viewByTitle.xsl, viewByInstructor.xsl, viewByDay.xsl and viewByCrn.xsl

Each stylesheet is named by the data tag it primarily used with when displaying data taken from the `courses.xml` file. The term `group` here is really a simplification, and stands for the `course_group` tag. Four(4) of the style sheets directly correspond to buttons on the site navigation bar, those buttons being: “Subjects,” “Courses,” “Instructors,” and “Day and Time,” which launch the `viewByGroup.html`, `viewByTitle.html`, `viewByInstructor.html`, and `viewByDay.html` files respectively. Each .html is generated by its associated .xsl file (see 1.4). Incidentally, the file name is also the name of the key used by the stylesheet for sorting.

`viewByGroup.html` is the principal of these pages and any `index.html` files should link to it as a starting point for the site.

There are three tiers through which the user may navigate through course information. On the 1st tier, the user views information as sorted by a table of contents(TOC), presented on each of the four primary .html pages mentioned above. When an item in a TOC is clicked, the user is taken to a 2nd or “middle” tier, where they are presented with a subgroup TOC. All individual .html for this subgroup is kept in a folder with the same base name as its primary .html, and such files are created by its corresponding .xsl stylesheet. For instance, when viewing the list of possible subjects (`viewByGroup`) on the 1st tier, the user might select “Economics” from its TOC, which will take them to the Economics sub menu .html, found in the `viewByGroup` folder and called `ECON.html`.

The third tier represents the individual classes themselves, each identified by their crn number. Frequently there are sometimes more than one class per course, for instance, the course “Academic Writing” has three classes, or sections, each identified by an individual crn number. The entire third tier is generated by the fifth stylesheet, `viewByCrn.xsl`. All the subgroup TOC’s .html link to these pages.

1.1 Navigation Bar

All .html generated by the core style sheets include a navigation bar stored in a `navBar.html`. Due to the subtle needs of the various pages there are three slightly different `navBar` files used, these are: `navbarA.html`, `navbarB.html`, and `navbarC.html`. `navbarA.html` is used by 1st

tier pages that contain 2 columns in their TOC. navbarB.html is used by all 2nd and 3rd tier pages. navbarC.html, a late arrival during this site's development, is used by 1st tier pages that contain only 1 column in their TOC, specifically the, viewByGroup.html and viewByDay.html pages. The main difference between navbarA.html and navbarB.html is that the button links in navbarB.html are required to have ../ in their path to connect to previous .html pages.

1.2 News .rss

The news.xsl and its associated files are kept separate, in their own news directory. The news.xsl stylesheet will generate a partial .html file for news-release called news.html which is included in *all* .html files generated for the site. To generate news see 1.4

1.3 Other external files

There are two other external data files that are used as lookup tables to convert codes to readable form. These are courses_codes.xml and meeting_codes.xml. courses_codes.xml is used to change course_group tags to full names, while meeting_codes.xml is used to change meeting_days tags to readable days.

1.4 Generating .html

First generate the news.html from the rss.xml and news.xsl. To do this you should be in the news directory, and type from the command line:

```
java com.icl.saxon.StyleSheet -o news.html rss.xml news.xsl
```

Return to the site directory. Issue the following commands from the command line:

```
java com.icl.saxon.StyleSheet -o viewByGroup.html courses.xml viewByGroup.xsl
java com.icl.saxon.StyleSheet -o viewByTitle.html courses.xml viewByTitle.xsl
java com.icl.saxon.StyleSheet -o viewByInstructor.html courses.xml
viewByInstructor.xsl
java com.icl.saxon.StyleSheet -o viewByDay.html courses.xml viewByDay.xsl
java com.icl.saxon.StyleSheet -o viewByCrn.html courses.xml viewByCrn.xsl
```

2.0 .fo and .pdf

All .pdfs used by the site are kept in the pdf directory. Three stylesheets are used to generate the various .fo files, that are later converted to .pdf format. The three stylesheets are kept in the site root directory as they need easy access to the .courses.xml and courses_codes.xml files to generate their .fo files. The three stylesheets are foMain.xsl, foGroup.xsl, foCrn.xsl, they generate 1st tier, 2nd tier and 3rd tier .fo files respectively, placing the .fo files in directories inside the pdf directory. 2nd tier files are place in a byGroup directory, while 3rd tier files are placed in a byCrn directory. The lone first tier .pdf should be called main.pdf and placed within the pdf directory.

2.1 Generating .fo

From the site root directory type at the command line:

```
java com.icl.saxon.StyleSheet -o main.fo courses.xml foMain.xsl
java com.icl.saxon.StyleSheet -o X.fo courses.xml foGroup.xsl
java com.icl.saxon.StyleSheet -o X.fo courses.xml foCrn.xsl
```

The X.fo file is not used, and may be deleted. To convert the main .fo from .fo to .pdf use:

```
fop main.fo main.pdf
```

A unix shell script should be used to batch convert all the new .fo files now in the pdf directory to .pdf format.

3.0 WML

Like the fo stylesheets, the WML viewWML.xsl stylesheet is also in the site root directory as it needs easy access to various data files. To create the .wml go to the site root directory and type from the command line:

```
java com.icl.saxon.StyleSheet -o viewWML.wml courses.xml viewWML.xsl
```

4.0 XHTML BASIC

The XHTML BASIC version is a mirror image of the XHTML site, except all file names start with the prefix B_ , otherwise the structure is identical. The XHTML BASIC files are simplified versions of the XHTML to make them XHTML BASIC compliant. The document type of the XHTML BASIC files is set to:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML Basic 1.0//EN"
"http://www.w3.org/TR/xhtml-basic/xhtml-basic10.dtd">
```

Samples of each .html url have been successfully validated with <http://validator.w3.org/>