

Instructions for using the course webpage templates

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Abstract

This is an introduction to using the course webpage templates. The document was originally written ten years ago. I have made only modest changes to the template, but tried to update this document to be a bit more current. Please send feedback to the author.

1 Before we begin

This is a linkable pdf document, that is clicking on links in the pdf document should open the appropriate page in your browser. Your browser may have to be running.

2 Introduction

Web resources are a moving target. While fifteen years ago it was a virtual novelty that a course have a web page, it has become the case today that students expect every course to have a web page, providing at least the basic requirements of the course, syllabus, and homework assignments. In fact the College has precisely the same expectation.

Many faculty have provided web pages for at least some of their courses in the past, but we have reached the point where it is desirable to have web pages for all of our courses. Many faculty like to use Blackboard, Canvas or whatever the current Learning Management System is offered by the College, and while there are a few conveniences to these systems, there are serious defects as well.

Having course web pages for courses we offer on a server we control makes them both open for public viewing and persistent over time, both of which LMS systems do not do by College policy. The persistence of the web sites is of use to us as faculty members teaching a course for the first time, or simply for the first time in several years: syllabi do evolve, attitudes towards what should be required evolve. Current students can look back at old practice exams and problems to further assist their studies, and the persistent pages are also an effective way for prospective undergraduate and graduate students to evaluate (in part) the department course offerings.

To that end, you will find discussed below a simple version of some web page templates for courses. One of the problems with web pages is that they are often a chore to maintain.

In this (admittedly) preliminary version, I have automated some of the more mundane tasks of building the web page. A good example is the [syllabus page](#). Of course to build the syllabus page, you need to have entered the raw data (dates, sections, topics), but then comes the task of building the table, entering each `tr` and `td` entry, making the pretty colors and so on. With these templates, the only thing you need to type is the syllabus entries. The rest is done automatically, including the banner and navigation bar. In fact, if you click on any other link, you will see the same banner and navigation bar, because the information is entered once and then carried forward to each page. By the way, you can get to the course homepage by clicking on the course number [Math 0/0](#).

So in this first iteration of automating web pages, you have to fill out a global settings file (with information like course name and title, instructor and section information. You will still have to tweak the various pages, but the task should be somewhat simpler to achieve a reasonable result. Of course, if you have questions, contact [linuxhelp](#).

From the link [Math 0/0](#), you can see what the pages will look like. There are currently three “color schemes”, blue (shown), green, and gray, which you can try by changing one line in the global settings file. You can also invent your own since it is clear I have no talent as a graphics designer.

The full instructions are below. Please send comments to the author.

3 Getting Started

You can download the templates from: http://www.math.dartmouth.edu/news-resources/computing/resources_general/course_webpage_template-2013.tgz. The file is a tar-gzipped archive. Most Mac, Windows and Linux systems are set up to extract this kind of archive automatically. In all cases you will get a folder called `course_webpage_template-2013`. These files represent the contents of your course `public_html` directory on www.math.dartmouth.edu.

4 The files and what they do

Almost all of the pages which are in the template directory carry the suffix `.phtml`. This indicates that they are a mixture of HTML code and PHP code. While this may initially make you a bit nervous, realize that it is PHP which is doing all the automation to save you work. More precisely, PHP is a “server-side scripting language”. What that means is that the PHP code is interpreted by the webserver on www.math.dartmouth.edu and it generates a page of pure HTML which is sent to your browser to render. It is analogous to what javascript can do (on the client or server side), or other commercial products like Microsoft’s active server pages.

The pages can be viewed and edited with any text editor. I’ll briefly describe the pages in the directory and their function basically in the order in which you should modify them.

4.1 global_settings.phtml

As the name suggests, this is one of the more important files. In it, you first set basic information:

- `$course_name = "Math 0/0";`
`$course_title = "Division by zero and other dangerous deeds";`
`$web_page_maintainer = "First M. Lastname";`
`$web_page_maintainer_email = "first.m.lastname@dartmouth.edu";`

As you should be able to guess (and you should look at the page on the web to orient yourself!), the first two lines are the course number and title which will be displayed at the top of each of your course web pages. The next two lines are more for protocol; they appear at the bottom of each of your web pages.

- Next come color schemes. Ok, I am a feeble graphics designer, but a bit of color helps any web page. In particular, multiline entries (e.g., the syllabus pages), come with different shadings of a given color. Here you select the basic color family. So far I have implemented blue, green, and gray. Suggestions for new ones (complete with the RGB settings) are welcome. Details are in `course_colors.php`. At any rate, try a color. If you don't like it, change it, save the global file, and refresh your web pages which will now have the new color scheme.

```
// Color schemes: try each; make suggestions for new ones
$color_scheme = "blue"; // Options are blue, green, gray
```

- Next come the entries to build the navigation bars which appear on all pages. You can have as few as 1 (what's the point?!) or as many as 8 links built into the navigation bar. The default is five. The structure of the bar depends on the number of entries. For up to five entries, they all appear on one line. For 6 or more, four appear on one line with the remainder on a second line. You specify the entries by modifying the (`navigation_bar_topics`) array below:

```
// Minimum of 1 and maximum of 8 topics for navigation bar
// The ones with // in front are commented out (i.e., inactive)
$navigation_bar_topics = array(
    array("General Information", "general.phtml"),
    array("Syllabus", "syllabus.phtml"),
    array("HW Assignments", "assignments.phtml"),
    array("WeBWorK Login", "http://webwork.dartmouth.edu/webwork2/m13f13/"),
    array("Downloads/Demos", "documents.phtml"),
    // array("Exam Information", "exams.phtml"),
    // array("Maple Demos", "maple.phtml"),
    // array("Something Else", "something_else.phtml")
);
```

Each entry in the array has the form

```
array("Text for navigation bar", "document to which link should point"),
```

The ones with a leading double slash (//) are commented out, that is deactivated. Remove the //s, save the globals settings file, and your pages will now have new navigation bars which include this new item. If you only want two items, comment an additional one out.

- Next you need to provide some information about the sections of your course. It could be a multi-sectioned course like Math 8, or a single-section course like Math 81. Perhaps in later versions I will clean this up a bit, but for now I have left the sections array with lots of entries commented out. This makes it easier for the dual uses it potentially has, but may look a bit daunting.

```
$sections = array(

    // Typical Multi-section entries (commented out)

    //array("(Section 1) Pauls",
    //      "MWF 11:15 - 12:20 <br> (x-hour) Tu 12 - 12:50",
    //      "13 Carpenter Hall"
    //      ),
    //array("(Section 2) Shemanske",
    //      "MWF 12:30 - 1:35 <br> (x-hour) Tu 1 - 1:50",
    //      "Filene Auditorium (Moore)"
    //      ),
    //array("(Section 3) Gordon",
    //      "MWF 1:45 - 2:50 <br> (x-hour) Th 1 - 1:50",
    //      "101 Bradley Hall"
    //      ),

    // Single section entry is active
    array("Shemanske",
          "MWF 10:00 - 11:05 <br> (x-hour) Th 12:00 - 12:50",
          "Kemeny XXX"
        ),
);
```

Anyway, the array as it stands is set up as a single-section course. Each entry in the array is itself an array with the structure:

```
array("Name of person",
      "Class meeting times including xhour",
      "Room in which classes are held"
    ),
```

Put as many or as few as are appropriate. The arrays are comma-separated.

- Finally, we come to the instructors array.

The included sample is set up for a single-instructor course, but has entries (commented out) for multi-sectioned courses.

```
$instructors = array(
// Typical Multi-section entries (commented out)

//   array("Professor C. Gordon",
//     "Office:  408 Bradley",
//     "Office Hours: Tuesdays 9-11, Thursdays 2-3:30",
//     "Phone: 646 - 3047 or
//       <a href='mailto:carolyn.s.gordon@dartmouth.edu'>BlitzMail</a>
//       (preferred)"
//     ),

//   array("Professor S. Pauls",
//     "Office:  404 Bradley",
//     "Office Hours: <a href='http://www.math.dartmouth.edu/~pauls'>here</a>",
//     "Phone: 646 - 1047 or
//       <a href='mailto:scott.d.pauls@dartmouth.edu'>BlitzMail</a>
//       (preferred)"
//     ),

//   array("Professor T. Shemanske",
//     "Office:  203 Choate House",
//     "Office Hours:
//       <a href='http://www.math.dartmouth.edu/~trs/frontmatter/office.html'>here</a>
//       "Phone: 646 - 3179 or
//       <a href='mailto:thomas.r.shemanske@dartmouth.edu'>BlitzMail</a>
//       (preferred)"
//     ),

array("Professor <a href='http://www.math.dartmouth.edu/~trs/'>T. R. Shemanske</a>
  "Office: 337 Kemeny Hall",
  "Office Hours: <a href='http://www.math.dartmouth.edu/~trs/frontmatter/'> here</a>
  "Contact via
    <a href='mailto: thomas.r.shemanske at dartmouth.edu'>email</a>."
  )
);
```

Again, each entry in the instructor array is itself an array of the form:

```
array("Name of instructor",
      "Office: Building/Room",
      "Office Hours: (either explicit or a URL)''",
      "Contact information (phone/email)"
    ),
```

The arrays are comma-separated.

These last two arrays (section and instructor) are used by the `general.phtml` page.

4.2 announcements.phtml

Announcements that you wish to make in the course are added to an array:

```
$announcements = array(
    "First hour exam is Tuesday, February 7",
    "Review session is scheduled for February 8 ;-)"
);
```

Announcements appear on the homepage and assignments pages (though they can easily be made to appear on any or all pages). In the default configuration, there are two announcements. If you have no announcements, comment out the two lines, and nothing will appear on your webpage. You can add as many as you like.

4.3 general.phtml

This page contains all the general information about the course: textbook, meeting times, homework policy, grading information. exam times, and so on.

This is a more daunting (in appearance only) page to edit. The key is to look at the actual web page, see what you want to modify, and then find it in this file. For example, the first thing you will need to change is the textbook, located on line 70 of the file. That is, all that is before it can be ignored.

I have tried to document the file reasonably well. You will see HTML comments like

```
<!-- Textbook separator -->
```

```
<!-- Textbook information -->
```

The separators are the dividers on the webpage, labeled Textbook, Scheduled Lectures, Textbook(s), etc, so it should be easy to find the appropriate section to modify. The other comments mark where the data needs to be changed. If you carefully compare the rendered web page with this code, it should be easy to modify. Be careful, stray typos can give your browser a fit.

The nice part is the sections on scheduled lectures and instructors are done automatically from the data you provided in the global settings file, so you can move on to exams and the like which should be fairly straightforward.

4.4 syllabus.phtml

The syllabus is one of the easiest pages to modify. All the data needed to render the syllabus page for math 81 in winter 2003 is listed below.

Each entry is an array with the following format:

```
array("code for type of day",
      "date",
      "sections covered in text",
      "Description of topics covered"
    ),
```

The code is “r” for regular meeting day, “x” for xhour, and “s” for special. Days with an “x” will have (xhour) listed next to the date as a reminder to students. Days with an “s” are set in a contrast color and are generally there for special announcements (e.g., Martin Luther King day, or first midterm, etc). The regular dates below are accurate for a MWF class in fall 2013.

```
$syllabus = array(
  array("r", "9/16", "15.1, 15.2", "Introduction to integration, iterated integrals"),
  array("r", "9/18", "15.2, 15.3", "Fubini's Theorem, integration over non-rectangular r"),
  array("r", "9/20", "15.4", "Integration in polar coordinates"),
  array("r", "9/23", "15.4, 15.5", "Integration in polar coordinates, applications of do"),
  array("r", "9/25", "15.7, 15.8", "Triple integration, cylindrical coordinates"),
  array("r", "9/27", "15.8, 15.9", "Spherical coordinates"),
  array("r", "9/30", "Ch 12", "Vectors, dot product, cross product, determinants, planes"),
  array("r", "10/2", "15.10", "Change of variables, the Jacobian"),
  array("r", "10/4", "15.10", "Change of variables, the Jacobian (continued)"),
  array("r", "10/7", "Ch 12, 13", "Projections, vector functions"),
  array("r", "10/9", "", "Review for the midterm"),
  array("s", "10/10", "", "Exam 1"),
  array("r", "10/11", "Ch 14", "Partial and directional derivatives, gradients, tangent"),
  array("r", "10/14", "16.2", "Line integrals of scalar functions"),
  array("r", "10/16", "16.1, 16.2", "Vector fields, line integrals of vector fields"),
  array("r", "10/18", "16.2, 16.3", "Line Integrals, The Fundamental Theorem of Calculus"),
  array("r", "10/21", "16.3", "The Fundamental Theorem of Calculus for line integrals (c"),
  array("r", "10/23", "16.3, 16.4", "Green's Theorem "),
  array("r", "10/25", "16.4", "Green's Theorem (continued)"),
  array("r", "10/28", " 16.5", "Curl and Divergence"),
  array("r", "10/30", "", "Review for the midterm"),
  array("s", "10/31", "", "Exam 2"),
  array("r", "11/1", "16.5, 16.6", "Curl and Divergence (continued), Parametrizing surfa"),
  array("r", "11/1", "16.6", "Parametrizing surfaces, tangent planes"),
  array("r", "11/4", "16.6, 15.6", "Surface area"),
  array("r", "11/6", "16.7", "Surface integrals of scalar functions"),
```

```

    array("r", "11/8", "16.7", "Surface integrals of vector fields"),
    array("r", "11/11", "16.9", "The Divergence Theorem"),
    array("r", "11/13", "16.9,16.8", "The Divergence Theorem (continued), Stokes' Theorem"),
    array("r", "11/15", "16.8", "Stokes' Theorem, continued"),
    array("r", "11/18", "", "Review")

);

```

4.5 assignments.phtml

Scan down a few lines until you find the directive:

```

/* *****
/* ***** Your HTML code goes below *****
/* *****

```

That's where you stuff goes!. Again I have set a template for a course in which homework is assigned daily, and collected weekly. View the webpage to see what the code does. If you are teaching a multi-sectioned course with homework due daily, you might want to use `daily_assignment_starter.phtml` instead as your `assignments.phtml` page.

In both cases there are pages `weekly_assignment_template.phtml` and `daily_assignment_template.phtml` which have a template for each week to copy and paste.

4.6 index.phtml

This is the course homepage. Unless you want to make some stylistic change, you never need to edit this. It is generated automatically.

4.7 navigation_bar.phtml

This is what generates the course banner and navigation bar. No changes need to be made to it.

4.8 template_page.phtml

Last but not least is this template page. The default navigation bar is set up for three items. If you want more, you must give a link to a new page, and this is the starter for the new page. As you can see below, it is clearly marked where your code should go. Just make as many copies of this as you need (and of course rename them appropriately).

```

<!-- -*- html -*- -->
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>

```



```

    <title>Template Page</title>
    <link href="course_style.css" rel="stylesheet" type="text/css">
</head>

<?PHP
require "global_settings.phtml";
include("course_colors.php");
?>

<body bgcolor="<?PHP echo background_color() ?>" >

<?PHP
/* Print the title and navigation bar */
include "navigation_bar.phtml";

/* ***** */
/* ***** Your HTML code goes below ***** */
/* ***** */
?>


<?PHP
/* ***** */
/* ***** Your HTML code goes above ***** */
/* ***** */
?>

<P>


<br>
<address>
<a href="mailto:<?PHP echo $web_page_maintainer_email ?>">
<?PHP echo $web_page_maintainer ?></a></address>

<!-- Created: Fri Dec 20 10:36:05 EST 2002 -->
<!-- hhmts start -->
Last modified: Sun Dec 22 09:16:11 EST 2002

```

```
<!-- hhmts end -->  
</body>  
</html>
```