

1. CE 3372 Lesson 1

Introduction to the course, syllabus, and moodle site.

1.1. Introduction

The title of the course is water systems design. The catalog description is:

3372. Water Systems Design (3:3:0). Prerequisite: CE 3305¹, 3354². Hydraulic analysis and design of municipal water distribution, stormwater collection, and wastewater collection systems. Oral and written presentations. (Writing Intensive)

The general scope of the course is:

- Examination of design guidance documents for drinking water distribution systems, a review of pipeline hydraulics, demand estimation, then a design project related to a drinking water distribution system.
- The computer program EPANET is presented to provide a necessary tool for the hydraulic modeling component of drinking water system design.
- Examination of design guidance for stormwater collection systems, presents a review of open channel hydraulics (as related to storm sewers), capacity (hydrology) estimation, then a design project related to a stormwater collection system.
- The computer program SWMM 5 is presented to provide a necessary tool for the hydraulic modeling component of the stormwater collection system design.
- Examination of design guidance for wastewater collection systems.

The graded components of the course are:

- Quizzes (administered on a learning management system); individual activity
- Exercises (administered on a learning management system); group activity
- Three exams (administered on a learning management system); individual activity
- Two design reports (administered on a learning management system); group activity
- Two presentations (administered on a learning management system); group activity

¹Mechanics of Fluids

²Engineering Hydrology

1.2. Web Site

The course materials are accessed through a website maintained at a commercial hosting service (JustHost.com). The website can be accessed several ways – one through the high-level entry point starting at <http://www.rtfmps.com/>.

Figure 1 is a screen capture of the website entry page. The content management system (CMS) is wordpress – be careful not to try to login to the wordpress site, as your credentials will not work.

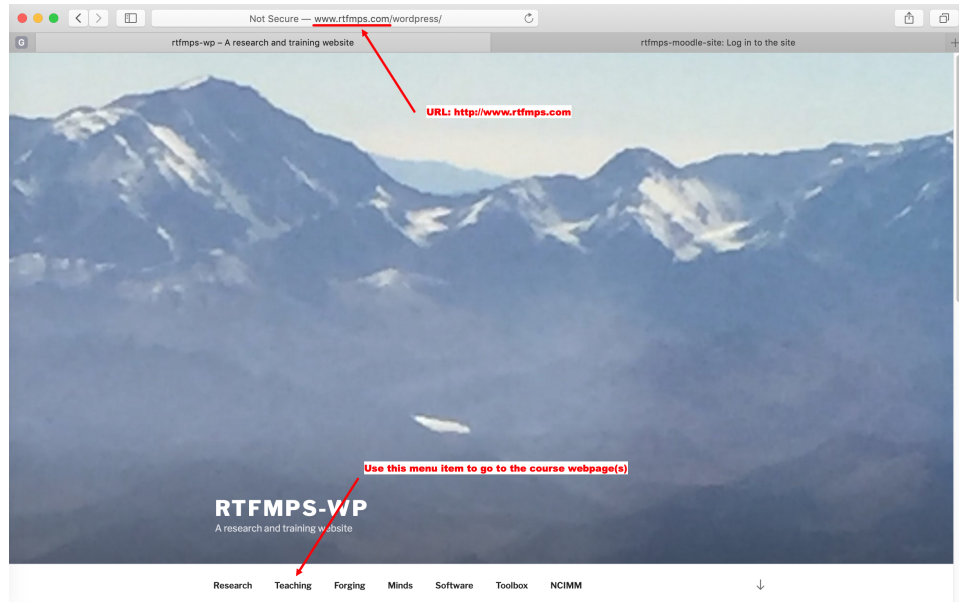


Figure 1. Web site entry screen for RTFMPS-WP site (annotations do not appear on real screen).

If you are using a mobile device, the menu shown at the bottom of the image in the figure appears as short line segments that have to be pressed to list the menu items. Select the “TEACHING” item to proceed.

Figure 2 is a screen capture of the teaching page that lists the links to course material(s). Select the course content repository to get to the course webpages – the required materials are stored in this location; even the Moodle site references back to these contents.

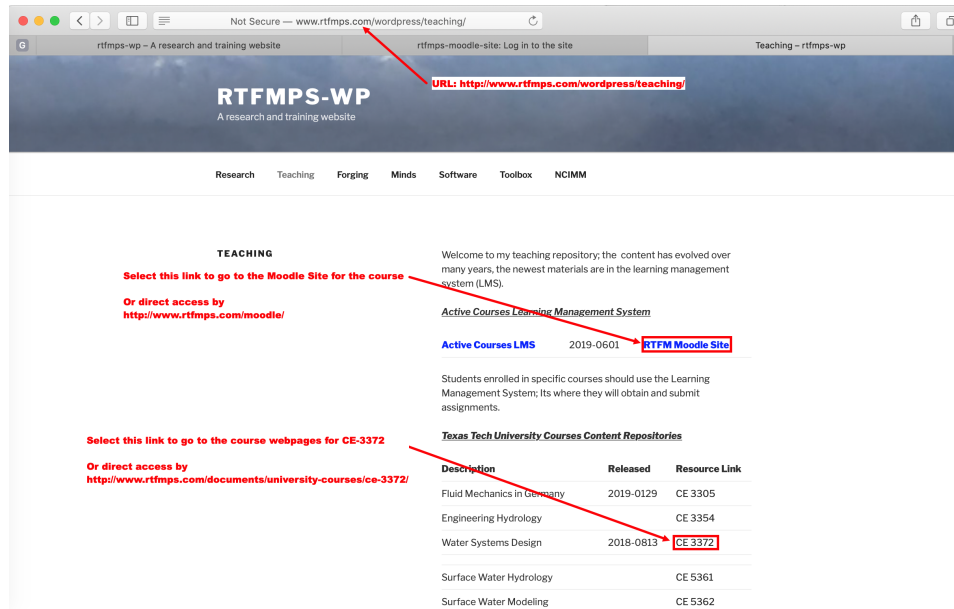


Figure 2. RTFMPS-WP Teaching Page (annotations do not appear on real screen).

Figure 3 is a screen capture of the dashboard page of the course. Nearly all of the course contents can be accessed from this page (quizzes, exams, and exercise submissions are through the moodle site). Figure 3 can be directly entered point by using its URL <http://www.rtfmps.com/documents/university-courses/ce-3372/>. It is worth your time to bookmark the direct entry and the Moodle site entry (discussed below).

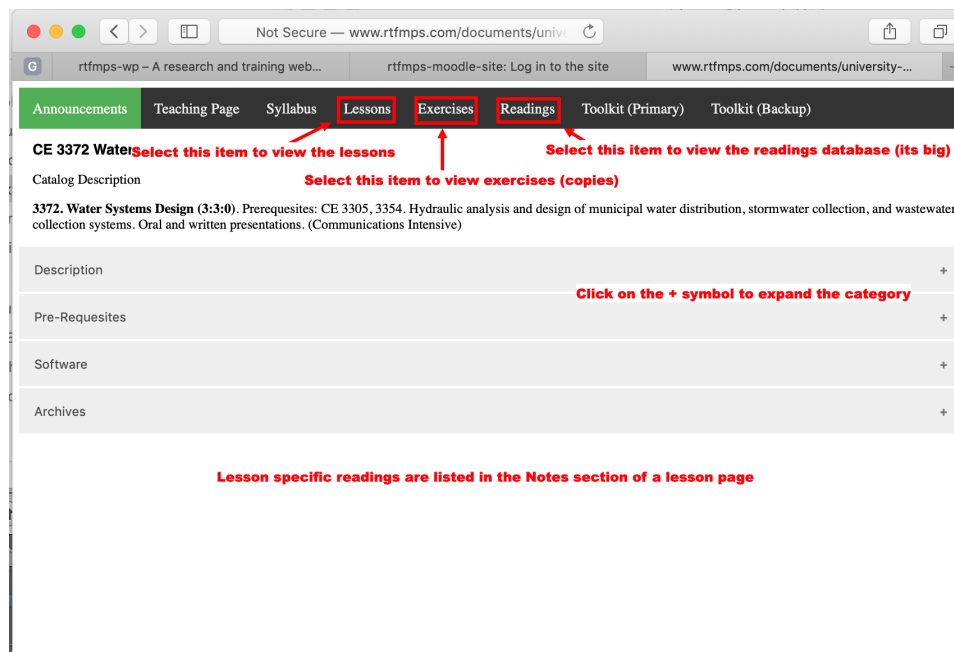


Figure 3. CE-3372 Course Home Page (annotations do not appear on real screen).

1.3. Moodle Site

The moodle site for the course is where you will upload completed assignments, take quizzes, and exams. These have specific due dates after which the server will not accept further inputs, so be sure to check the Moodle site frequently.

Moodle is a learning management system (like Blackboard), but is open-source and can be administered by an ordinary person. The Moodle site for this class is maintained at a commercial hosting service (JustHost.com) independent of Texas Tech University. The uptime is generally equal to or better than the TTU network. Connections are by userid/password. Data encryption (userid and passwords are encrypted) is disabled to be compatible with mobile devices and older browsers – it is normal for your browser to report the connection is UNSECURE. The only identifiable data connected with your Moodle access on my server is your Name and TTU Email address.

Figure 4 is an image of the login screen you are presented with when you access the Moodle site. Guest login is allowed using the password `jamesbond007`.

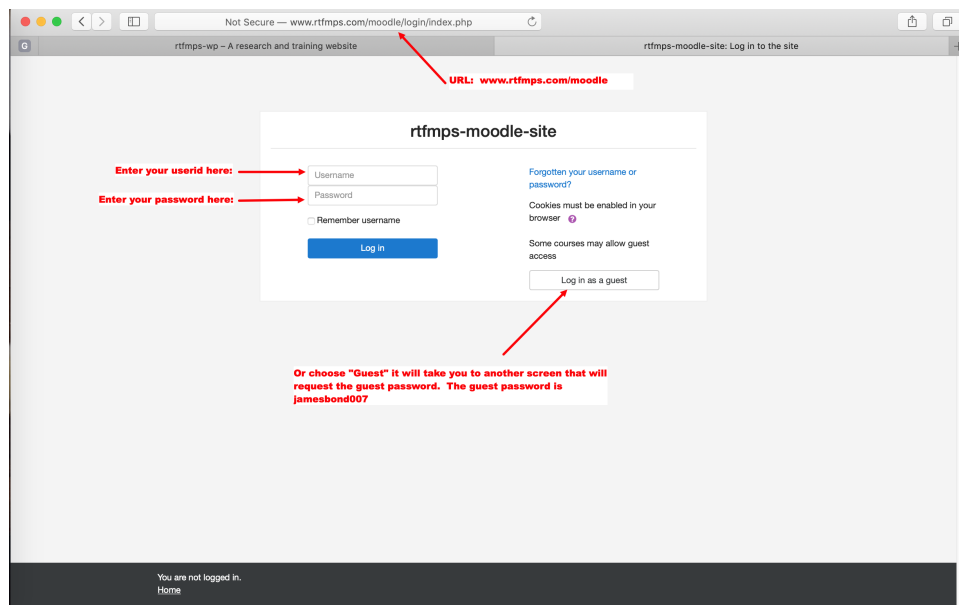


Figure 4. Login screen for Moodle site (annotations do not appear on real screen).

1.4. Syllabus

The syllabus for the course is located at www.rtfmps.com/documents/university-courses/ce-3372/0-Syllabus/. The syllabus is mostly a plan for the course, and the schedule may change from time-to-time. Generally the syllabus will not change much after the second week of classes when various last-minute University, College, and Departmental activities are communicated.

1.5. Water Systems

The course title is **Water Systems Design** so a natural question is what is meant by a water system?

In this course it refers to a water distribution system that conveys raw or treated water to customers, a storm water collection system that conveys storm water away from infrastructure to reduce flooding damages and activities of daily life inconvenience, and wastewater collection systems that convey wastewater to treatment facilities for eventual release of the water back into the environment (or intentional reuse).

Water systems can be classified into three main categories (Chin, 2006; Mays, 2011):

1. Water-control systems – to control the spatial and temporal distribution of surface runoff from rainfall events (drainage engineering). They can also serve a use role if the captured rainwater is used later on for water supply (rainwater harvesting).
2. Water-use system – to support human habitation and include water-treatment systems, water-distribution systems, wastewater-collection systems, and wastewater-treatment systems.
3. Environmental restoration system – to manage spatial and temporal distribution of water (quality and quantity) in support of non-human habitation.