

WP 3 – Curriculum Development II

Outcome 3.1 -Structure of the online learning platform

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1 Executive Summary

In this task, a web portal for adaptive e-learning purpose is developed. It serves as a single access point for all online course materials, self-studying resources (e-books, scientific articles, reports of case studies), quizzes, assignments, and as an interface for discussion/interaction among students as well as between students and lecturers. This web portal will satisfy the following requirements:

- Give students access to learning materials and other useful information as well as student's services
- Allow students to interact with each other and with course's instructor
- Allow students and instructors to share information
- Provide an innovative teaching tool for instructors and an alternative learning tool for students.

The VClass LMS (Learning Management System) developed by AIT interERLab is utilized with appropriate modifications for course management, forum discussion, announcement, grading, etc. The BigBlueButton, an open source conference system, and its expanded version MCONF will be utilized for organizing web conferences. This report will present the structure of Virtual Class and guides on how to use the system for online teaching/learning purpose.

2 Introduction

An online learning platform is a teaching and learning environment located within a computer-mediated communication system. In an online learning platform, all activities and interactions take place through the computer instead of face-to-face. A virtual classroom conducted on an online learning platform may involve three overlapping scopes of interaction technologies; i.e., virtual courses, online meetings and online presentations.

In an online learning platform, education refers to instruction in a learning environment where teachers and students are separated by time or place, or both. It is the place where students and instructors interact, and courses of entire degree programs can be electronically delivered in a whole or in separate modules via a combination of different teaching and learning methods. Usually, in this type of learning environment, students and teachers interact using internet.

A typical virtual classroom conducted on an online learning platform may contain:

1. Class activities
2. Group and individual learning activities
3. Discussion and chats with a students
4. Quizzes and surveys
5. Homework activities and assessment documents
6. Full online courses with modules of work
7. Forum and synchronous chat session

Conducting courses on an online learning platform can help to fulfil the learners' need in terms of

- Flexible time – students may participate at any time using their own agendas
- Location – students are not limited to courses offered in their geographic locations

For both teachers and students, courses conducted on an online learning platform provide many advantages:

1. Remove the need to travel to a location in which to participate/deliver the course lecture
2. The courses can be accessed from any computer/device with internet connection
3. The courses are accessible to students with physical disabilities, which is an advantage over the real classroom, as they can access it from home
4. Independent time schedule of attendance

The VClass online learning platform developed under MSIE 4.0 project will served the above requirements. This platform was developed at AIT and have been tested with 2 courses, i.e., AT72.03 Statistical Models & Design of Experiments (August Semester, 2018 – completed) and AT72.08 Stochastic Decision Models (January Semester, 2019 – ongoing). The general structure of VClass contains the following modules:

- Home page
- Lectures
- Forum
- Access logs
- Grade system
- Grade category
- Grades
- About

In the following section, introduction about the above modules together with guidance on how to use the platform will be presented.

3 Structure of VClass online learning platform

3.1 Requirements

In order to use VClass, the users must

- Be a lecturer at partner universities or a student currently enrolled in the corresponding courses offered at partner universities
- Have login credential provided by website administrator (AIT)
- Have laptop/device with internet connection

The users can login to VClass from the address: <http://msie.vclass.net/>

The login interface is illustrated in Figure 1 below:



The login interface for VClass features the MSE 40 logo at the top. Below the logo, the text "Please sign in" is displayed. The login form consists of two input fields: "Username" and "Password". Below these fields is a checkbox labeled "Remember me". A blue "Sign in" button is positioned below the checkbox. At the bottom of the form, there is a logo indicating it is "Co-funded by the Erasmus+ Programme of the European Union" with the European Union flag. The footer of the interface shows "© ISE 2018".

Figure 1. Login Interface of VClass

3.2 Home Page

After login, the teacher will see the list of courses he/she offered (see Figure 2)

Then by clicking on "Open Course" button on the right, the home page of the course will be opened as seen in Figure 3

On the home page of a course, the following information can be seen:

- Recent announcements
- Learning documents/Lectures recently uploaded

New announcement can be posted by use of "Post Announcement"

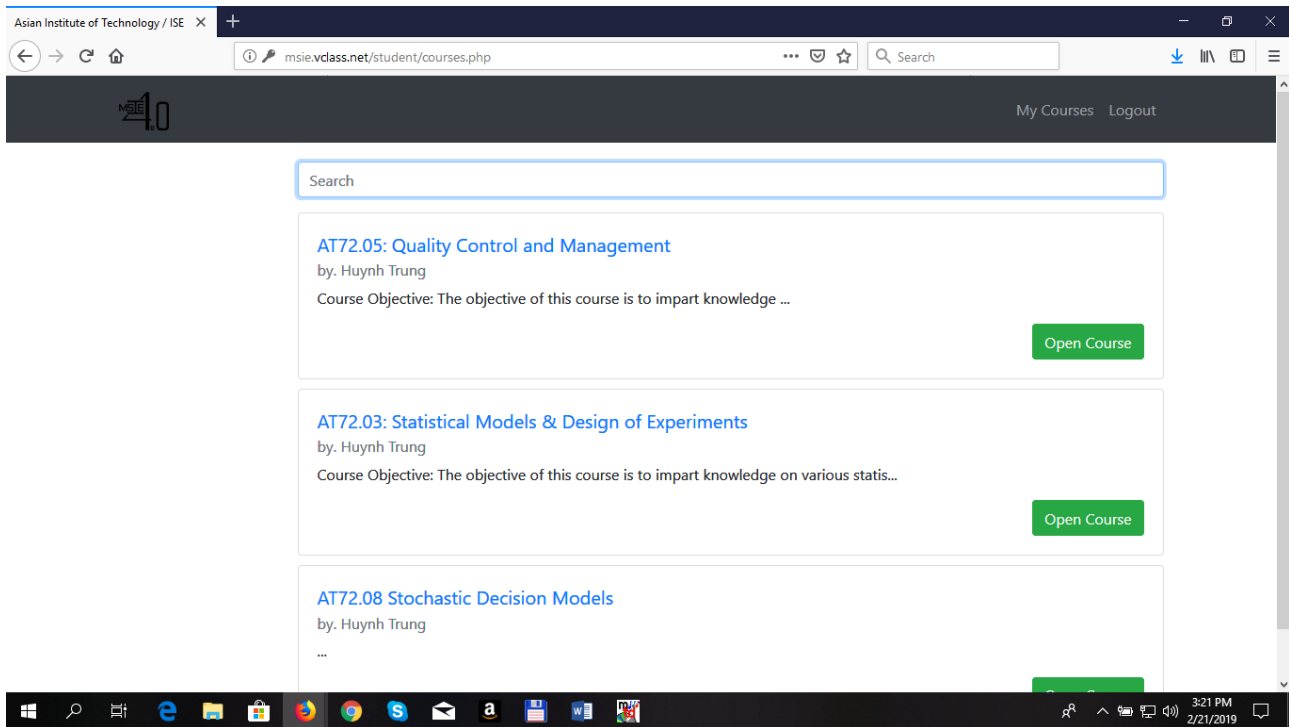


Figure 2. List of opened courses in VClass

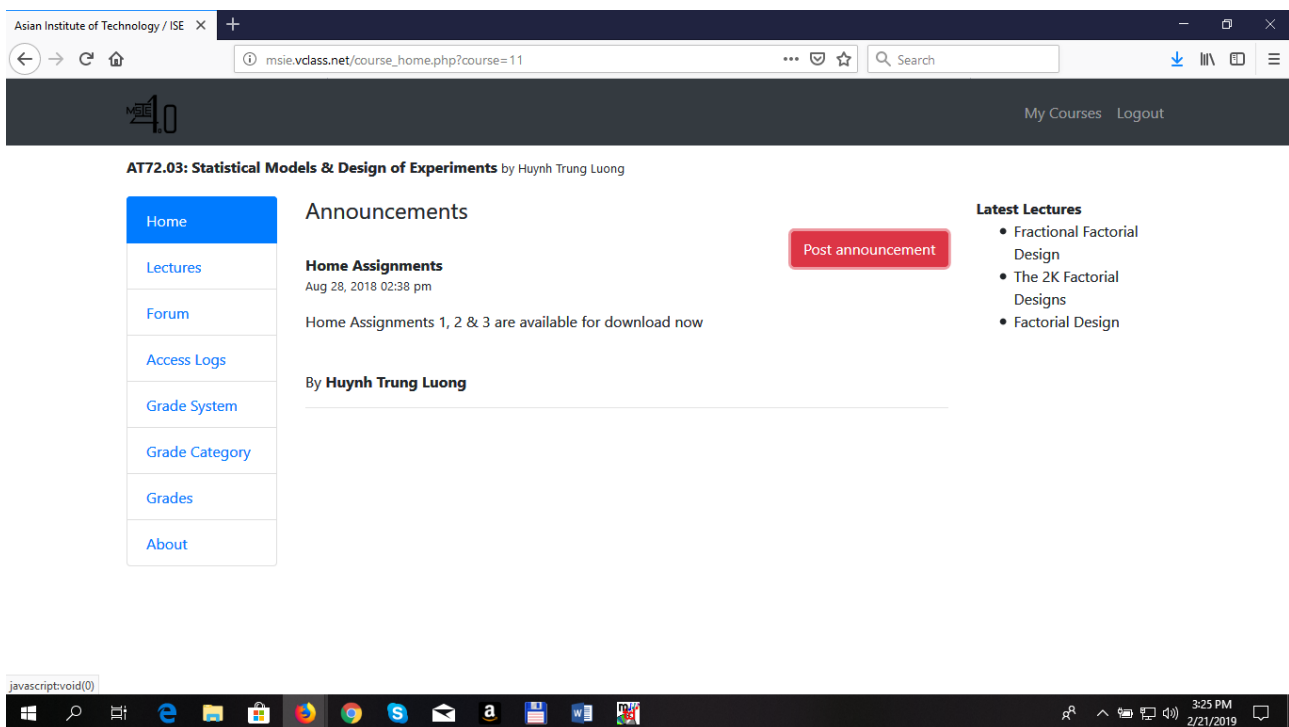


Figure 3. Home page of a course

3.3 Lectures Module

In lectures module, the lecturers can upload lectures (e.g., ppt presentation files), live videos & recordings, documents such as pdf and word files. The interface of “lectures” module is showed in Figure 4

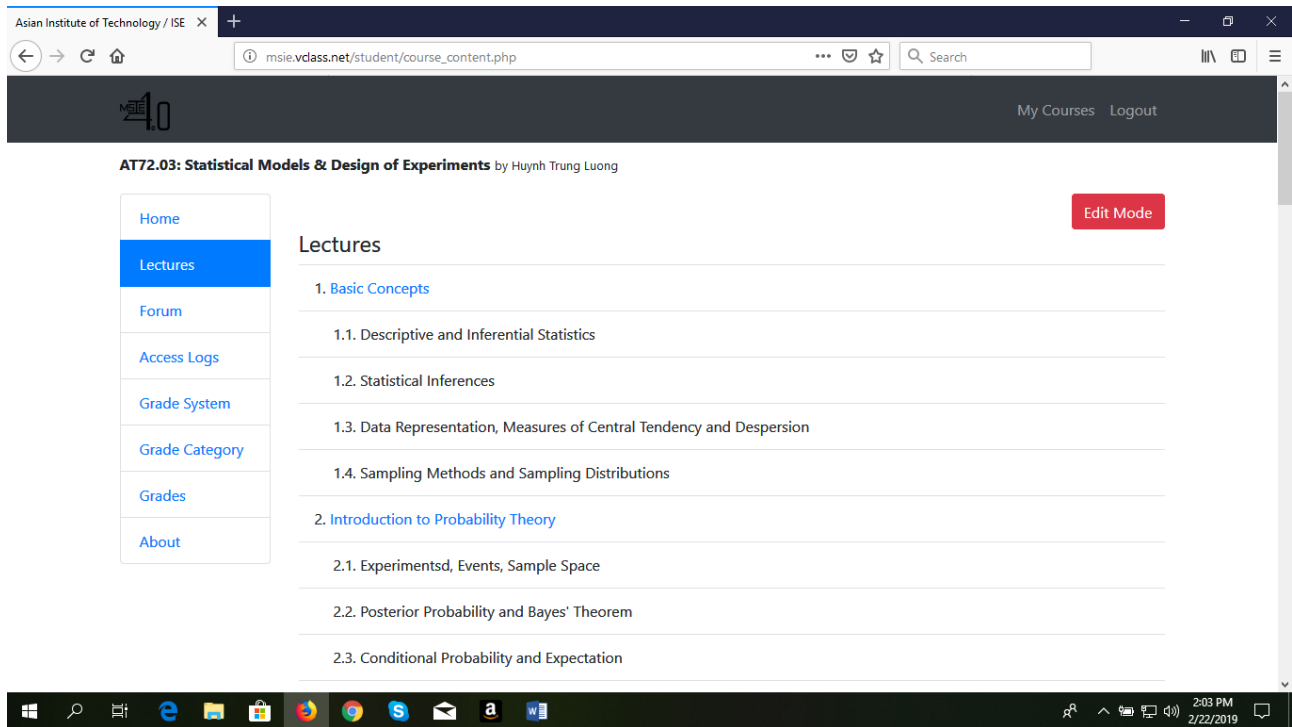


Figure 4. Interface of “Lectures” module in live mode

In order to upload lectures/documents on to the learning platform, click the “edit mode” on the interface of lectures module in “live mode” to enter “edit mode” (see Figure 5), and then click “File Manager”. On the pop-up window, click “upload” and then upload files from computer to the learning platform (see Figure 6).

On the interface of “Lectures” module in edit mode, the outline of the course offered can be defined. The procedure is as follows:

1. Type the lectures title and click add button
2. Use “arrow up” and “arrow down” buttons to arrange the sequence of lectures.
3. Use “arrow left” and “arrow right” button to define folder/sub-folder

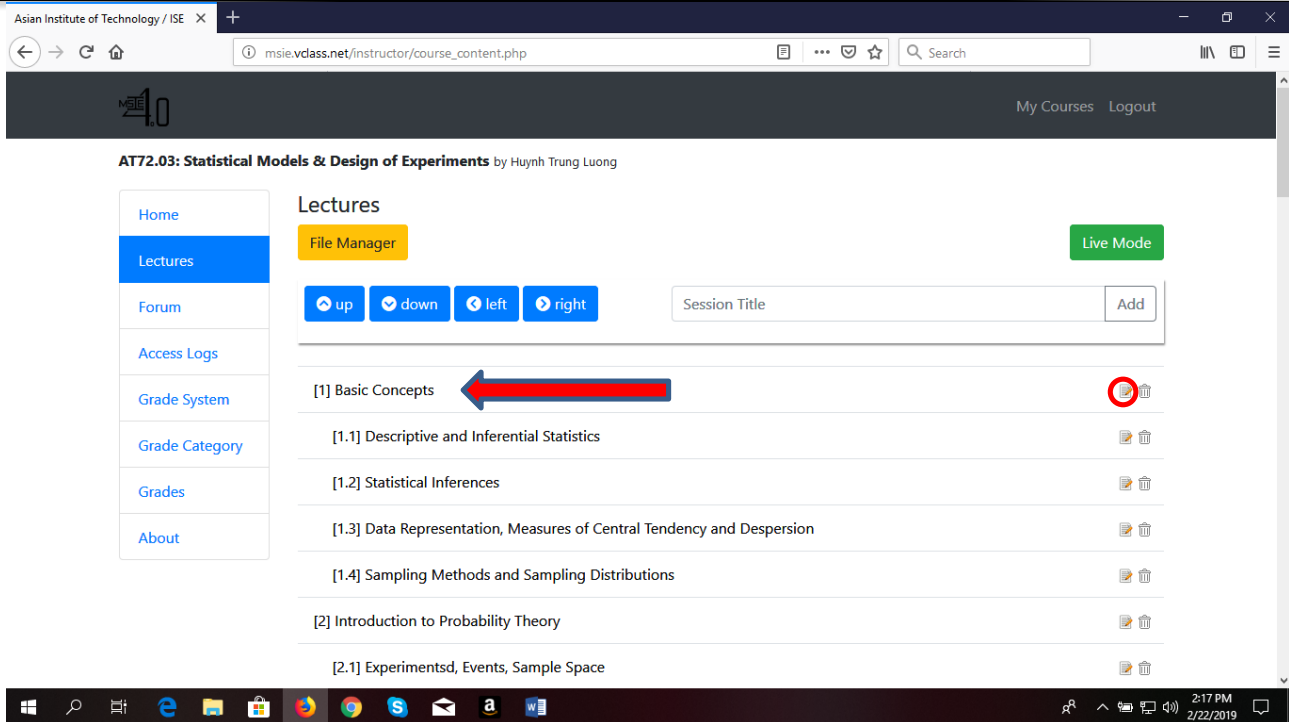


Figure 5. Interface of “Lectures” module in edit mode

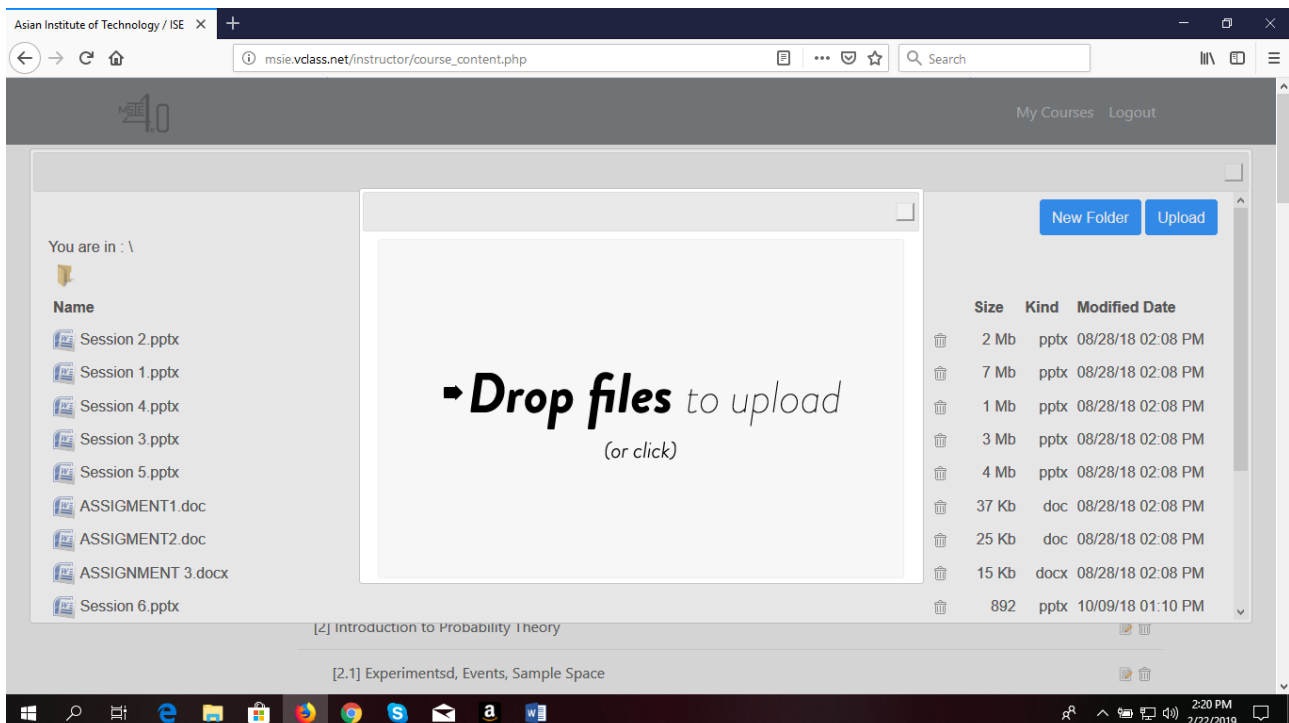


Figure 6. Interface of for uploading lectures/documents on to the learning platform

To link the content that has been uploaded using File Manager to a session title in the course outline or to revise the session title/linked content, the procedure is as follows:

1. In edit mode, click the edit icon that encircle red in Figure 5.
2. On the pop-up window (see Figure 7) edit the session title or lecture title.
3. On type field there are 2 types
 - Content file – for documents, ppt, pdf, etc.. and video recording lectures
 - Live Lecture – for live class using video conferencing system (MCONF)
4. Click browse if selecting the “content file” from step 3 and select the appropriate document from file manager.
5. Available Date – Set the time duration for which the lecture is available.
6. Content type - by default the content type is set to Normal, another option is to select SCORM (Sharable Content Object Reference Model) compliant type so that the document can be easily transfer to other learning management systems (LMSs)
7. Score category can also be specified here if the session/lecture title is declared under “Grade Category” module for determining final grade of the students enrolled in the course.

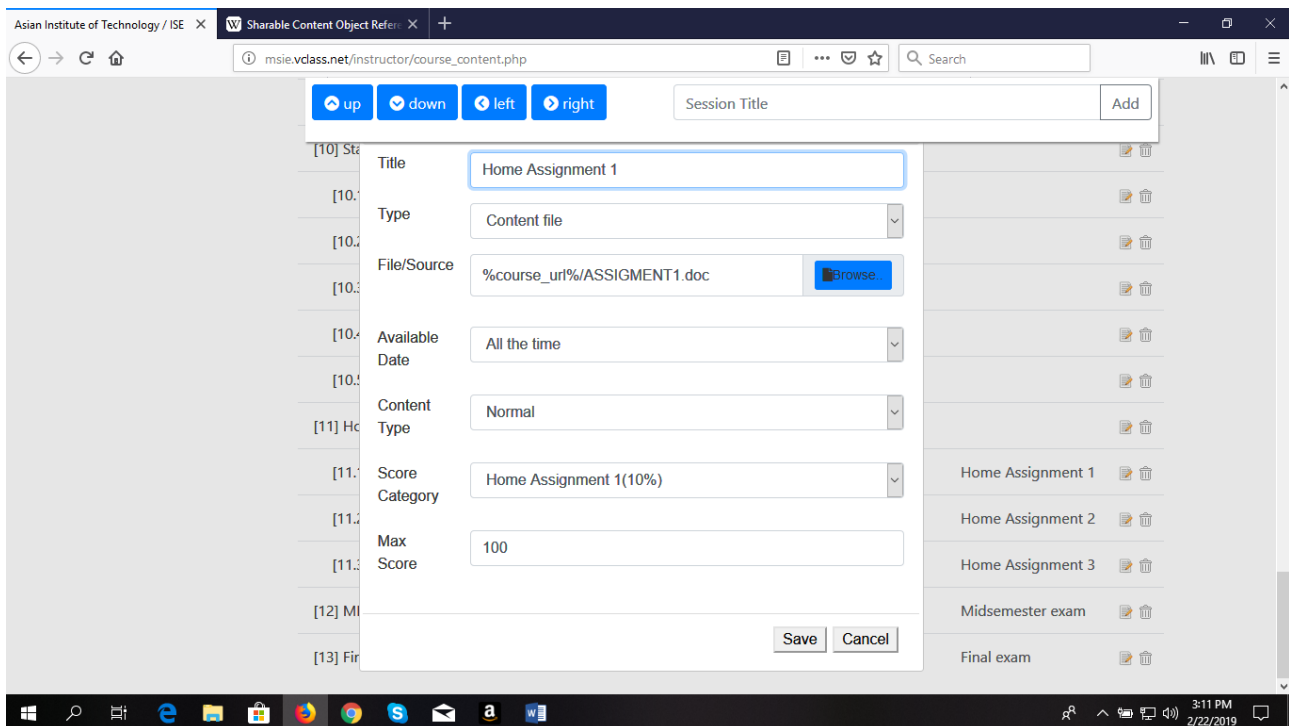


Figure 7. Interface to define a session/lecture title in the course outline

3.4 Forum Module

On the interface of the forum module (see Figure 8), the teacher can create different rooms for communication with students and among students (e.g., Discussion, Asking for Help, etc.). Activities happened in this forum module can be observed and monitored in real time.

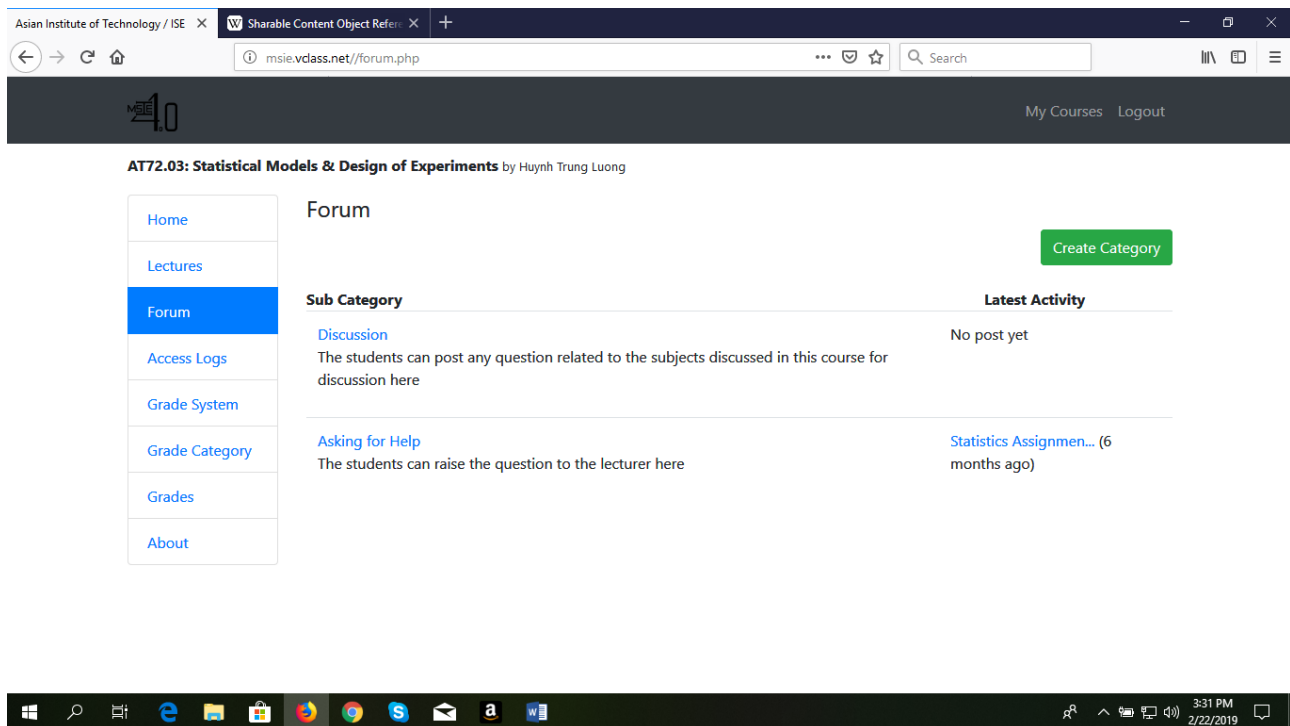


Figure 8. Interface of the Forum module

3.5 Access Logs Module

In this module (see Figure 9), the number of times a student accessed a specific session of the course is recorded. By clicking on the name of a student, the duration of time he/she spent in each access is also presented.

3.6 Grade System Module

In this module (see Figure 10), the grading system (i.e., A, B+, B,...) used for the course will be defined based on the cumulative percentage a student received at the end of the course. The tentative grade of a student will be automatically determined following the grading system defined in this module based on their performance in different grading criteria of the course (e.g., home assignment, individual/group projects, presentation, exams, ...).

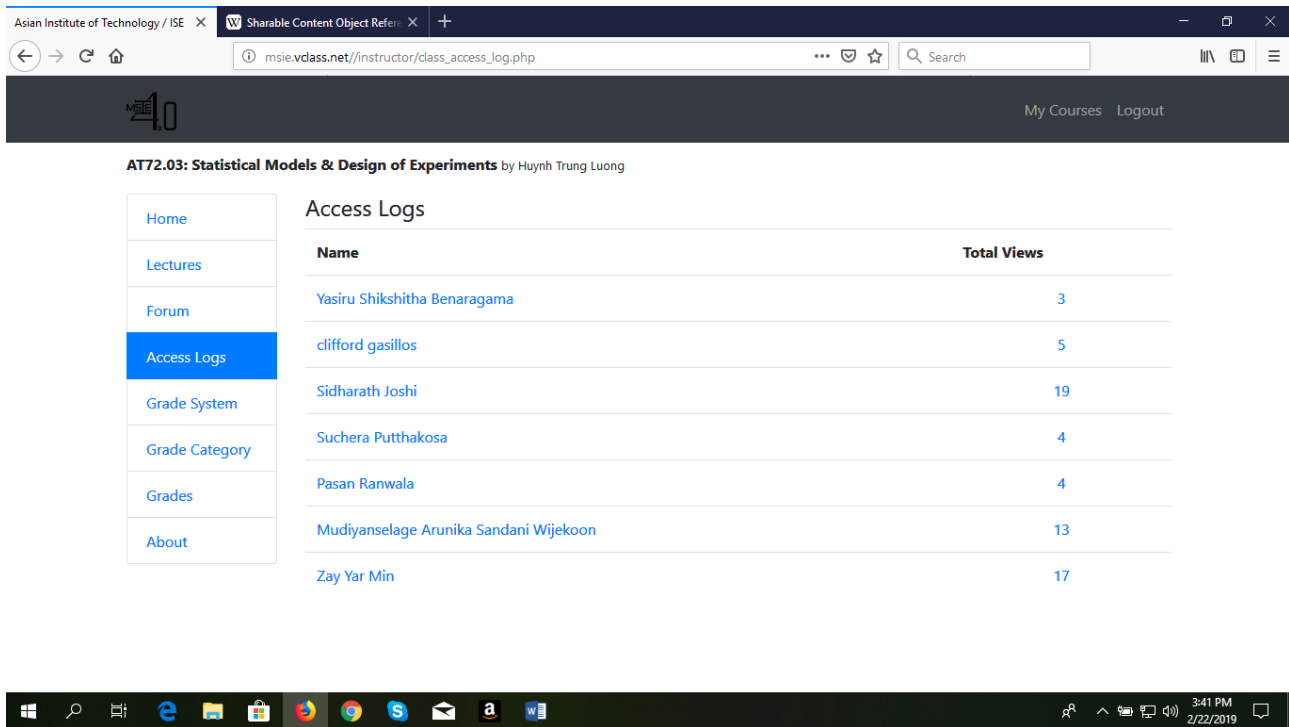


Figure 9. Interface of the Access Logs Module

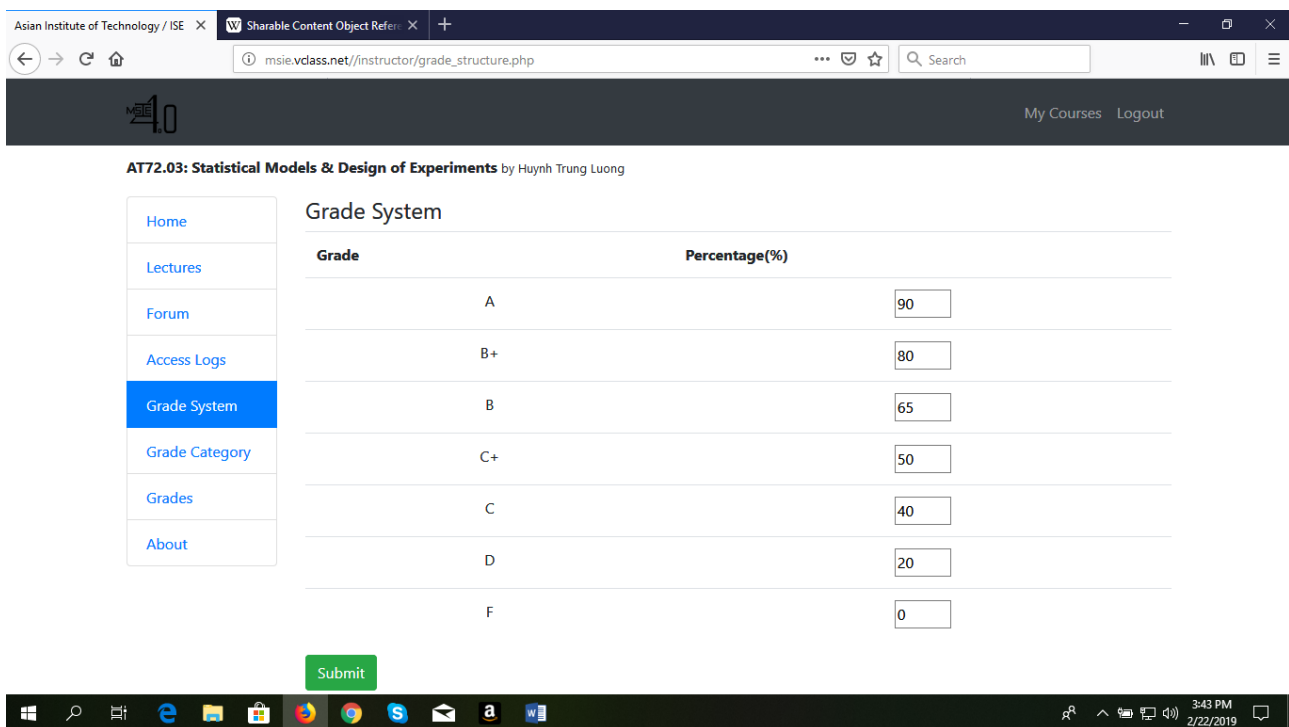


Figure 10. Interface of the Grade System Module

3.7 Grade Category Module

In this module (see Figure 11), the performance criteria used for calculating the tentative grades of students are defined.

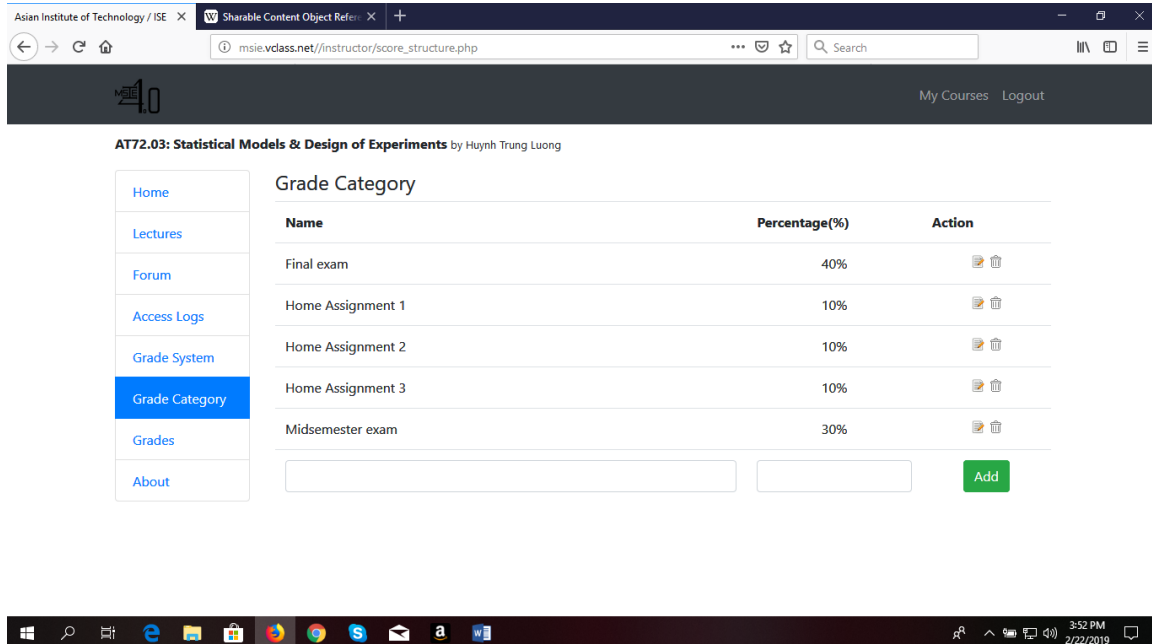


Figure 11. Interface of the Grade Category Module

3.8 Grades Module

In this module (see Figure 12), the tentative grade of the student will be defined based on the weighted cumulative percentage of all performance criteria. But, the final grade can be adjusted.

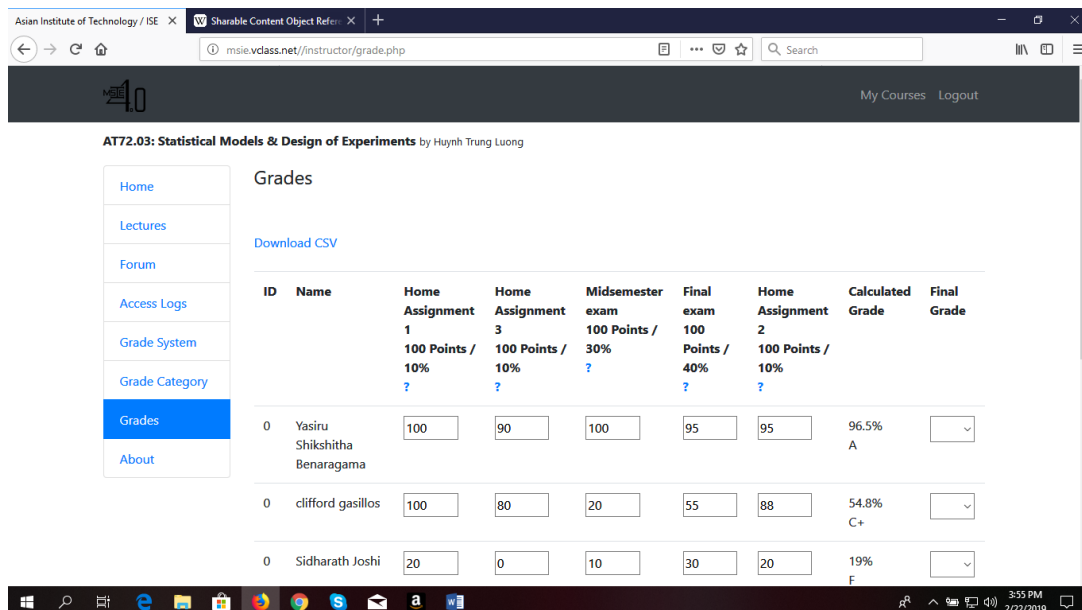
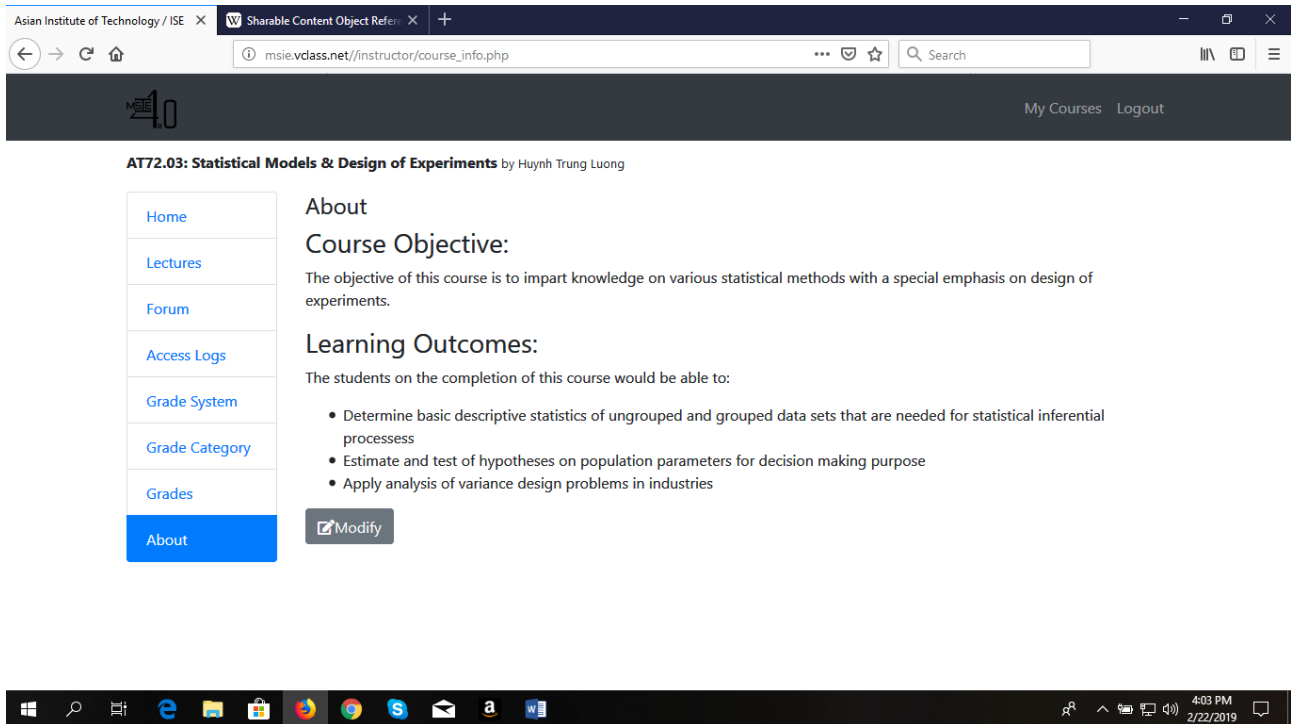


Figure 12. Interface of the Grades Module

3.9 About Module

In this module (see Figure 13), basic information about the course (e.g., course objective, course learning outcomes, etc.) are presented.



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msie.vclass.net/instructor/course_info.php

My Courses Logout

AT72.03: Statistical Models & Design of Experiments by Huynh Trung Luong

Home

Lectures

Forum

Access Logs

Grade System

Grade Category

Grades

About

About

Course Objective:

The objective of this course is to impart knowledge on various statistical methods with a special emphasis on design of experiments.

Learning Outcomes:

The students on the completion of this course would be able to:

- Determine basic descriptive statistics of ungrouped and grouped data sets that are needed for statistical inferential processes
- Estimate and test of hypotheses on population parameters for decision making purpose
- Apply analysis of variance design problems in industries

Modify

4:03 PM 2/22/2019

Figure 13. Basic information of the course