# TEACHING PORTFOLIO VERSION 1

## **Topics:**

- 1. Introduction
- 2. Teaching Responsibilities
- 3. Teaching Philosophy
- 4. Teaching Methodologies
- 5. Teaching Strategies
- 6. Description of Course Syllabus
- 7. Efforts to Improve Teaching
- 8. Evaluation of Teaching
- 9. Product of Teaching
- 10. Short Term and Long Term Goals
- 11. Conclusion

# Prepared by Noorminshah A.Iahad, PhD

Department of Information Systems Faculty of Computer Science & Information Systems Universiti Teknologi Malaysia 81310-UTM Skudai, Johor Malaysia Email : <u>minshah@utm.my</u>, <u>noorminshah@gmail.com</u> Phone: +607-5532428

## December 2008





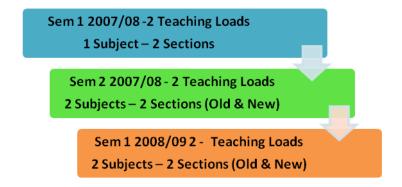
## 1. Introduction

I started my career in the academia as a tutor just after I graduated from my BSc degree in 2000. I have been assigned to assist a lecturer at that time in helping students during their laboratory session for the subject Database Systems. The next semester which is semester 1 2001/2002 session, I have been assigned to teach a first semester, first year subject which is Technology & Information Systems.

Last year in 2007 after I came back from my study leave and start serving again at my department, only then I realized that documenting each and every of our activities is very important. As far as I can remember, the total number of students that I taught during the first semester of 2001/2002 session mentioned in the previous paragraph was 110 students. In the same year, in October I started my study leave to pursue my MSc and PhD degree at the University of Manchester.

Preparing this teaching portfolio is really a good practice of documenting my teaching responsibilities and experiences. At the same time, it provides me with vast opportunities for self-reflection on my performance in teaching and supervision of students. This teaching portfolio includes my teaching and supervision experiences for the duration of 3 semesters starting from July 2007/08 to December 2008/2009. In most cases, the details of for example example for example on the teaching methodology given is based on

In general my teaching responsibilities are as below:



## 2. Teaching Responsibilities

After I came back from my study leave, for the first semester of 2007/08 session, I have been assigned to teach 2 sections of students the same subject I have taught before my study leave: Technology & Information Systems. This subject provides student a holistic view of the area of Computer Science & Information Technology. Interestingly, although the content is the same, the codes for the subject for the two different sections are different. For Section 1, the code is still the same which is SCK1413, while for Section 2, the code is SCD1513. I have been informed by the Head of Department that this situation happened because the faculty has just started a new undergraduate program. So, the SCK1413 belongs to the old program while the SCD1513

belongs to the new program. Due to this, starting from session July 2008/09, the old program will not be offered, thus only the code SCD1513 will be used from July 2008/09 onwards.

The total number of students for SCK1413 is 21 while SCD1513 is 24. The subject Technology & Information Systems is one of the core faculty subjects. All first year students from 5 departments in the FSKSM registered for this course which totaled up to 10 sections. Aside from teaching those 2 sections, I have been appointed as the Course Coordinator. As a Course Coordinator, I have the responsibility to ensure that all activities among all sections to be consistent in terms of the content and assessments.

During the second semester of session 2007/08, I have been given the responsibility again to teach the course SCD1513. However, the group of students taught was not students from FSKSM but from FPPSM. Although it is only 1 section, the total number of students is 71. Another subject that I taught was SCK3443 – Management Support Systems. This subject is one of my department's elective subjects which are targeted for final year students. From my experience, the enjoyment of teaching both first year students and final year students is similar. The first year students are normally eager to know new things, while the final year students showed me the attitude that they are willing to keep on learning.

Last semester which was July 2008/2009, I was excited that I have been given the responsibility to teach another new subject SCD2613 – Systems Analysis & Design Methods. Like SCD1513, this subject is also the core faculty's subject. The section that I taught was section 5 containing 40 second year students from the Software Engineering Department. It was really quite challenging for me to teach this section. The students were very passive. I rarely get response from them although I tried my very best to treat them as my friends. To make sure that I am in the right track, I have asked one of the lecturers from the Software Engineering Department. She agreed with my point of views that the students were passive. However, from her point of view, they have very good attitude in wanting to learn. So it was a relief for me to know that. I have also taught the same subject to part-time students at the UTM City Campus (now known as UTM International Campus) who have registered under the School of Professional and Continuing Education (SPACE), UTM.

Again in this semester, I have been assigned to teach first semester, first year students SCD1513. As the coordinator for the subject, this semester all the lecturers had agreed to organize an academic trip to the PC Fair at Persada Johor Convention Center, Johor Bahru. To make sure that the 'visit' will be beneficial for the students, they were given a specific assignment which is related to making a decision to buy a computer or a laptop. They were asked to produce and submit a report 2 weeks after the visit.

After teaching SCD1513 for 3 consequent semesters, next semester which is the second semester of the 2008/09 session, I will be teaching 1 section of second semester, first year students (Database Systems) and 1 section of final semester students (Management of Organizational Information Systems). All the above mentioned courses are undergraduate courses.

#### **Supervision**

Besides teaching, I am responsible in supervising final year students in completing their final year project (FYP). The FYP is divided into 2 which are FYP 1 and FYP 2. Seven of my students have passed both FYP 1 and FYP 2. Six of them have graduated in August this year while one of them will be graduating in March next year.

For this semester, which is the first semester of 2008/09 session, I am supervising 6 students undertaking the FYP 1. However, 1 of them has decided to dropped the FYP 1 due to medical reasons. Next semester, 5 of them will be registering the FYP 2, while the student which has dropped the subject last semester will re-register for her FYP 1.

Other than supervising final year students, i also supervise Masters students who are doing their Masters project. Similar to the FYP, the Masters project contains two components. Masters project 1 and Masters project 2. So far I have 1 student who has completed both his Masters projects. Two other Masters students under my supervision have completed their Masters project 1 and are going to pursue their Masters project 2 next semester.

The list of students under my supervision is as in Appendix A.

#### **Other responsibilities**

Other than the teaching responsibilities mentioned above, I have been appointed as the Head of Student Development's Committee of my department for undergraduate students. Under this portfolio, I have conducted a program called 'Database Cadets' for the department's first year students who are registered under the Database Systems majoring. The Academic Advisors of the students are also being invited as facilitators for the program. Students are not quite sure about the future of this program. So the program was conducted in order to motivate them to love the field and at the same time to let them know their Academic Advisors better.

At the postgraduate level, I have been appointed as the Coordinator of Professional Stream which mainly involves the monitoring of two Masters Taught Course programs which are MSc IT(Management) and MSc IT (Manufacturing).

## 3. Teaching Philosophy

I started my journey in the academician world quite early which is right after I graduated from my BSc degree. Learning from my experience as a student, I believe that if we want feedback either our students learn from what we have taught, we should treat our students as our friends so that they can openly tell us their problems related to their studies. However, I have to be in control of the students so that they will not take advantage of the situation.

I believe that being a lecturer that teaches a group of different students every semester (sometimes same group of students), I have the responsibility to not only share the technical know-how but also to share and guide them from time to time on their self development. I always emphasize in class on the importance of 'taking charge' of themselves or in other words on deciding what they want to gain during the university life and in the future.

During my MSc study, my dissertation project was on providing students feedback through online assessments. Thus, one of my teaching philosophy is I must provide feedback toward students' learning. For this purpose, I tried to target so that I will give feedback on students' assignments, quizzes and test within 2 weeks after submission. In addition, I have allocated specific time in my weekly schedule for a 'walk in session'. Students can come and meet me during this session without setting any appointments.

Related to the previous teaching philosophy is I feel responsible to provide students with ongoing assessments. However, to implement this, I have to be creative to come out with exercises that will not put too much burden on my students and myself.

# 4. Teaching Methodologies

Recently, the Malaysian Qualifications Agency has emphasized the need to align higher education with Outcome-Based Learning (OBE). One of the criteria of OBE is teaching and learning should be centered around the needs of the students. I strongly agree with this due to my experience while doing my PhD research. An area covered in my research is the Constructivist Learning Theory and Student-Centered learning. I am lucky to have a colleague (Assoc. Prof. Wardah Zainal Abidin) within my department, who has been actively involved in the Center for Teaching & Learning activities at UTM. She is the one who has introduced me to Active Learning (AL) and e-Portfolio.

Following this, I decided to expose AL to my students so that they are involved in their learning rather than just listening to my lectures. However, the decision either to give normal lectures or apply AL depends on the content that I am going to deliver for a particular week or lecture. If the content is something very new to the students, I will give them normal lecture. On the other hand, if the content is somewhat more of what they have experienced, I will assign them to discuss in groups.

For example, one of the topics in the SCD1513 subject is 'Using the Internet: Making the Most of the Web's Resources'. This topic is quite general in nature and as it is taught in Week 12 of the semester, students have already got lots of experiences in surfing the Web to get resources in completing their previous assignments. Thus, I chose to apply the AL approach. I have divided the content into 8 sub-topics. Then I asked the students to form groups of six. To assist students in their discussions, I gave a guideline on what I expect for them to come out with at the end of the discussions. At the end of the discussion, a representative of each group was required to present what they have discussed. To make sure that other students will get the most of what other groups have presented, I will ask a question. The group that manages to answer the question (other than the group which presented) will get 5 marks. The marks will then be accumulated to get the best group for that particular group discussion. My intention was to accumulate the marks for this type of discussions and announce the best group at the end of the semester. However, due to time limitations, I have not got the time to do so. I hope that this will be realized in the future semesters.

## 5. Teaching Strategies

In terms of the teaching materials, I will normally upload the Power Point slides to UTM elearning. I used e-learning not only for providing content to the students but also sometimes, I requested the students to submit their assignments through e-learning. For the subject SCD1513 last semester, as there is a mixture of Malaysian and International students, I have created a forum for them to interact with each other. Mainly the discussions among them were not academic related but more of getting to know each other.

For the last few semesters excluding last semester, I found out that some students did not do well for their final exams. I think this because not much in class exercises or formal assessments given to them. Excluding the assignments and group project, they were given only 2 quizzes, 1 test at the mid of the semester and then the final exam. Following this, last semester, I gave students a very simple exercise after giving them lectures for them to grasp the gist of the content. I encouraged them to discuss with their friends, to refer to books and slides to get the answers. This exercises were not graded.

In terms of test and final examination papers, since I was assigned as the coordinator for the subject SCD1513 last semester, I contributed 1 question for the test and appointed 4 other lecturers to contribute a question each based on particular topic 3 weeks before the test. For the final exam, as soon as we finished with the test, I have appointed other lecturers who were not involved in contributing the test paper to contribute 1 question each. Since there were 10 lecturers teaching the same subject and not all of them were involved in contributing the questions, my task was to compile the questions and then I will send to other lecturers to review and give their comments.

As mentioned in the section 'Teaching Philisophy', I emphasize on giving students feedback. I would like to have my own policy which is to return their assignments, quizzes and test papers within 2 weeks after submission. This is actually quite challenging. Last semester, I managed to implement this for only 1 of the subjects. I hope that I will manage to implement on both subjects that I will be teaching in future semesters.

## 6. Description of Course Syllabus

The subject SCD1513- Technology & Information Systems introduces students to information systems and information technology as well as its uses in daily lives both at home and at work. Students are introduced to various aspects of IS/IT encompassing hardware, software, network, communications, internet, multimedia, graphics and systems applications.

For last semester the main reference book used was 'Technology in Action'. Students were highly encouraged to buy the book. I have reminded students that it is unethical to photocopy the book. I suggested them to share buying the book. Although this will not be that favorable, I advised them this is one of the ways that they can set strategies and manage their time if they share buying the book. Last previous semesters, other main reference has been used which is 'Discovering Computers'. We decided to change to the 'Technology in Action' since the language is easier to understand and the book is more attractive to read. The supporting material (a CD) is also very helpful. To ensure that students will be able to buy the books from the first week of the semester, I have arranged with a book supplier a month ahead.

Starting from last semester, my Head of Department has instructed us to prepare our lesson plans according to the format given by CTL to adhere with the MQA format. This time, I have asked assistance from Assoc Prof Wardah again on revising and constructing the Learning Outcomes for the subject. There were all together 6 learning outcomes.

For the whole semester, students were given 3 assignments (2 individual and 1 in group), 3 quizzes (the best 2 will be chosen for summative assessment), 1 test, 1 Public Speaking, 1 group mini project and the final exam.

The percentage of marks out of the overall subject assessments is as shown in Table 1.

No	Assessment	Number	% each	% total
1	Assignments	3	5%	15
2	Project	1	20%	20
3	Quizzes	2	5%	10
4	Public Speaking	1	5%	5
5	Test 1	1	15%	15
6	Final Exam	1	30%	30
7	Participation	-	-	5
	Overall Total			100

Table 1: Percentage of marks for each type of assessment

The course syllabus attached in Appendix B.

## 7. Efforts to Improve Teaching

### **Self reflection**

I practice self reflection from time to time as one of the effort to improve teaching. From the first two semesters of teaching the subject SCD1513, I realized that not much in class exercises have been given to students. Students are given 2 to 3 quizzes throughout the semester, a test in the middle of the semester and finally have to face the final examination. As an effort to improve this, for this semester (semester 1, 2008/09) I provide students with in class exercises. They are asked to discuss with their friends to find the answers. The idea is for them to learn and not merely read to take quizzes and the test.

#### **Formal and Informal Discussions**

I have been teaching the subject SCD1513 with 9 other lecturers for 2 semesters. As the coordinator for the subject, to ensure the effectiveness of the course delivery, I will conduct a short meeting with other lecturers before the semester begins. The purpose of the meeting is to discuss the activities and assignments for the subject. We will also discuss from time to time via emails.

#### Attend short courses/conferences

#### Campus Connect Program

I feel lucky for being selected by the department to attend the Campus Connect Program organized by INFOSYS and the Ministry of Higher Education of Malaysia. The aim of the program is to align the needs of IT and engineering colleges, the faculty and students with the needs of the industry, thus preparing "industry-ready" professionals. The program has been conducted in May 2007 at Universiti Teknologi Petronas for 3 weeks.

The main idea of this program is more towards preparing trainers that can train final year students to be ready to work once they graduated. Strong emphasis has been given towards the teaching methodology of the core subjects where the skills are strongly required by the industry. From this program, students will be guided to complete a series of courses whereby their sequence has been defined and should be followed.

#### International Conference on University Learning & Teaching '08

I have also attended the conference mentioned above as a way to improve my teaching. The conference is organized by Universiti Teknologi MARA from 20 to 21 October 2008 in Shah Alam. Aside from presenting a paper at the conference, I gain a lot of knowledge of different teaching methodologies applied by other academicians such as Problem-Based Learning, Peer Support Learning and Collaborative Learning.

In addition to this, it opens up my views that research can be done through case studies of the subjects that I am teaching. This is especially true for the SCD1513 subject whereby I have been assigned as the course coordinator and course owner. This alerts and reminds me that documentations of all sorts of activities related to delivery of teaching, assignments, quizzes and tests are important. It is also a good practice to conduct small survey pre and post implementation of the subject every semester.

#### Malaysia Government Open Source Software Conference '08

I have been assigned by my Head of Department to represent the department for this conference that has been organized by MAMPU. At this conference, I have accompanied two students to demonstrate their open source software products. Through this conference, I have been exposed to many other open source software and observed the capabilities of the software. Open Source Software has been widely used by many government agencies and has been proven to cut down software licensing costs.

The knowledge gained is especially useful and related to the subject that I have been assigned to teach in the next semester (Semester 2, 2008/09) which is Management of Organizational Information Systems. Students can be exposed in detail on the organizational strategies on using open source software to gain business operational and competitive advantage.

## 8. Evaluation of Teaching

I have practiced in all the classes that I taught usually in the second or third week of lecture to ask students to comment on my teaching using 1 word which I remind that must be 'from the bottom of their hearts'. I reminded them not to be scared to judge me, as their judgments can be meaningful to me so that I can improve my teaching from time to time. I received both positive and negative judgments. A negative judgment is for example 'You (me) are reading the slides and not explaining the content'. I realized that this happened because it was the first time I taught the particular subject – SCK3443. I tried my very best not to read the slides in the other

lectures, instead I used my own words and use the white board and marker to give more explanation.

#### **Students Evaluation of Teaching (e-PPP)**

At the end of each semester, students are required to evaluate their lecturers based on 4 main characteristics which are Teaching, Delivery, Assessment and Student-Lecturer Relationship. Lecturers will be able to view the score for each criteria and the overall score. Table 1 below shows my score for all the subjects that I have taught. The cells with the same color represents the mean score for the subject SCD1513. The score in the purple colored cell represents my score for the subject SCK3443 while the green colored cell represents the overall score for the subject SCD2613. The score for the subject SCD1513 is almost approximately the same except for the one taught in semester 1, 2007/08 session which is 3.87. In my opinion the reason that this happened is because during that semester, according to the weekly schedule, Subject 2 is taught earlier in the week compared to Subject 1. Thus, the repetition of lectures for the section – Subject 1 with the overall mean score of 4.23, made me more confident in delivering my lectures. The full results of the Students Evaluation of Teaching is attached in Appendix C.

Semester	Subject 1	Subject 2
Sem 1 07/08	4.23	3.87
Sem 2 07/08	4.19	4.6
Sem 1 08/09	4.49	4.4

Table 2: Overall Mean Score

## 9. Product of Teaching

I have always reminded my students to aim high. Aim to get A for my subject and the least that they should get is B which is 3.0. This is reasonable as the cumulative percentage of marks before facing the final exam is 70%.

Grade	Sem 1	07/08	Sem 2 07/08	Sem 1 08/09
A+	0	0	1.33	6.52
А	19.05	20.83	26.67	36.96
A-	47.62	16.67	33.33	23.91
B+	23.81	29.17	26.67	8.7
В	9.52	20.83	9.33	6.52
B-	0	12.5	1.33	8.7
C+	0	0	0	2.17
С	0	0	0	2.17
C-	0	0	0	0
D+	0	0	0	4.35
D	0	0	0	0
D-	0	0	0	0
Е	0	0	1.33	0

Table	ς.	Reculto	for	SCD1513
Iable	з.	nesuits	101	3001313

For the subject SCD1513, based on Table 2, for semester 2 2007/08, 1 student got an E. This student is an international student. He was actually absent for most of my lectures. I tried to contact him by asking his friend from the same country, unfortunately he did not know the contact number. However, then I was told that the student has actually dropped the subject. For semester 1 2008/09, there were a number of students who scored below B-. I found out that they were international students. From my observation, I can say that there are two reasons that caused this: i) some of their assignments were not submitted, ii) they have language limitations. It was really difficult for them to answer their tests and final examination papers.

In terms of FYP supervision, for the very first semester I have been appointed as a supervisor, I have been selected as the 'Best Supervisor' at the department's level. Three of the students developed 3 different prototype systems for the Culture Tissue Laboratory, FKKKSA. The Head of Department has shown interest in using the prototype systems.

# 10. Short Term and Long Term Goals

I define short term goals as goals that I would like to achieve in my teaching during each semester. My short term goals related to teaching are:

- i. To prepare all notes, assignments questions before hand.
- ii. To conduct course outcome survey
- iii. To have my own policy which is to provide feedback to students regarding their marks of quizzes, assignments and test within 2 weeks upon submission?
- iv. To practice and align teaching and assessing students with MQA requirements.

The following are my long term goals related to teaching and my professional development:

- i. To get certified on Unified Modeling Language which is one of the Systems Analysis and Design Methods. This is very important for me to teach one of the faculty core subjects and to improve the supervision of undergraduate final year projects.
- ii. To teach postgraduate students.
- iii. To practice Problem-Based Learning from time to time and share the experience with others who are interested to implement this instructional method
- iv. Publish a book for the subject SCD1513 Technology & information Systems which I have been assigned as the Coordinator for 3 semesters and as the Course Owner during the faculty's curriculum review.

## 11. Conclusion

This is the first time I have produced a teaching portfolio and I find it a very useful experience. I will upload it to my personal website so that it can be shared with others. As what I have produced here, my aim is to produce 1 teaching portfolio after every 3 semesters, insya ALLAH. I hope that later, a compilation of my teaching portfolios can be a very useful resource of knowledge sharing and I think this is one of the ways that I can leave my legacy.