**SWJTU-OSU FPST JOINT PROGRAM**

**Course Material Submission Requirements for International Professors**

In order to finalize the teaching process for each course and improve our work efficiency, we ask that you prepare the following materials for submission at the end of the course:

**Before the course starts**

Syllabus (Appendix 1), Course Schedule (Appendix 2)

**During teaching**

a. Records and copies of all assignments, coursework, and other things that compose students’ final grades should be kept, for example attendance records (using the spreadsheets with student names provided to you by the staff), homework/quizzes/exam questions & answer papers and your suggested answers, PowerPoint presentations and/or video, etc.

b. For the homework, quizzes and exams, etc., please ask students to write on A4-size blank paper, one side only, or you can make an answer sheet (whichever option you choose, make sure there are only answers on it).

**Before the course ends**

a. Please pack up all your teaching PPTs.

b. Please complete the Undergraduate Course Self-Assessment Report (see Appendix 3).

c. If there is a final exam, please keep an electronic version and a printed version of the exam, students’ hand-signed final exam attendance list(Appendix 4), your hand-signed final exam record sheet(Appendix 5), all the students’ exam papers and answer papers(each answer paper with your signature).

d. After the final exam, please keep your suggested answers, grading standards, course analysis and summary (Appendix 7) and gradebook (Appendix 8) (an electronic version and a printed version with your signature on the printed copy).

e. If any student has failed the course and there is a final exam, you must provide us with an alternate copy of the exam to be given before you leave. Please give us an electronic version and a printed version of the final exam paper, suggested answers and grading standards so they can retake it in the beginning of the next semester; it should be organized in the same way as the previous final exam.

Before you end your class officially and leave Emei campus, please make sure that all the materials above have been submitted to our staff, Check List of Course Material Submission (Appendix 9) is provided for your convenience. Failure to submit these materials may cause serious problems for our program administration.

If you have any questions, please come and ask our staff. Thanks for your cooperation!

Appendix 1 Syllabus Done

Appendix 2 Course Schedule Done

Appendix 3 Undergraduate Course Self-Assessment Report of Southwest Jiaotong University

Appendix 4 SWJTU Emei Campus Exam (Quiz) Attendance List

Appendix 5 SWJTU Emei Campus Midterm/Final Exam Record

Appendix 6 Quiz/Exam Answer Sheet

Appendix 7 Course Analysis and Summary

Appendix 8 Final Gradebook

Appendix 9 Checklist for Course Materials for Submission

**SWJTU-OSU FPST JOINT PROGRAM**

**March 20, 2020**

Appendix 1

**IEM 3501 –Engineering Economic Analysis**

**Instructor**

Dr. Eddie Luo

Kent Business School

University of Kent, UK

Email: e.luo@kent.ac.uk

**DingTalk group**: For all questions related to class assignments.

For private question about the course, please contact me by email.

**Wellness Statement**

**You are important to me.** If at any time you feel that you need to talk or that there is something you are unable to manage about this class, please let me know. We can discuss your struggles, and if you need additional help I can refer you to the appropriate service. You are a valuable member of the OSU community. Do not let your physical or mental health suffer because of this class or anything else you might encounter. ***You got this!***

**Description**

***This is an online course.*** All lecture PPT, recordings and learning resources, are accessed entirely online through DingTalk.

***IEM 3501*** is a terminal, one-semester general economic course for engineers covering the general principles of discounted cash flow, single and multiple cash flow, present worth, future worth, equivalence, loans and bonds etc.

**Prerequisites**

None.

**Goals**

At the end of this course, the outcomes expected are:

1. an ability to formulate engineering economy problems;
2. an ability to account for time value of money using engineering economy factors and formulas;
3. an ability to determine the economic worth of a single project;
4. an ability to compare multiple projects based on economic measures of worth.

**Textbook**

Textbook – Fundamentals of Engineering Economic Analysis, White, J.A., K.S. Grasman, Case, K.E. LaScola Needy, D.B. Pratt, 1st edition, John Wiley & Sons, 2014.

**Instructor Response Time**

The instructor will respond to all student inquires *generally* within 48 hours. Assignments and exam grades will be posted within 2 weeks of the assignment/exam due date.

**Participation Expectations**

During this online course, students are expected to engage in the material on a regular basis. I expect all students to preview the textbook, and review the lecture PPT and recordings, which provides the information necessary to be successful in this course.

**Grading Policy**

Grade in this course will be calculated according to the completion of the following components:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Final exam: 60%, Others: 40%   |  |  | | --- | --- | | Evaluation Forms | Weight | | Participation | 10% | | Midterm | 30% | | Final | 60% | | Total | 100% | |

**Assignment Descriptions**

The course will be conducted in weekly modules. Weekly lecture videos, reading assignments, quizzes and suggested homework will be posted in each module. Important information, updates and reminders will be posted in DingTalk. Please check regularly.

**Examinations:**

A midterm exam and a final exam. There will be a re-sit examine for those who fail the final.

**Best Practices for Success in this Course**

* Read all appropriate text material and announcements.
* Watch all lecture recordings.
* Write additional notes when learning.
* Rewrite information learned from lecture videos and text readings into a separate notebook.
* Transcribed notes should be in clear outline form, with examples.
* Work all suggested homework problems.
* Review notes at least twice a week.
* Study in small groups or pairs virtually.
* Keep up with the material covered in class -**don’t get behind**.

**Technical Requirements**

Material in this class is designed to be platform-friendly: any desktop or laptop computer equipped with a modern internet browser such as Chrome and Firefox will be sufficient to fulfill the requirements of the course.

Appendix 2

# Course Schedule

|  |  |  |
| --- | --- | --- |
| Course Calendar | Teaching Contents | Teaching time |
|
| Lecture 1 | An overview of engineering economic analysis | 3 h |
| Lecture 2 | Cash flow diagram and single cash flow | 3 h |
| Lecture 3 | Multiple cash flow I: uniform series | 3 h |
| Lecture 4 | Multiple cash flow II: gradient series | 3 h |
| Lecture 5 | Multiple cash flow III: geometric series | 3 h |
| Lecture 6 | Equivalence I | 3 h |
| Lecture 7 | Equivalence II | 3 h |
| Lecture 8 | Review/practice session | 3 h |
| Lecture 9 | Midterm | 3 h |
| Lecture 10 | Loans I | 3 h |
| Lecture 11 | Loans II | 3 h |
| Lecture 12 | Bonds I | 3 h |
| Lecture 13 | Bonds II | 3 h |
| Lecture 14 | Present worth I | 3 h |
| Lecture 15 | Present worth II | 3 h |
| Lecture 16 | Review/practice session | 3 h |

Note:

a. The teaching contents may be adjusted according to student response and feedback.

b. The lecture is either rescheduled to another date or cancelled if on national holidays, inconsistent with the university timetabling.

Appendix 3

# Undergraduate Course Self-Assessment Report

**Of Southwest Jiaotong University**

**(for course teachers)**

**Course：\_\_\_\_\_Engineering Economic Analysis**\_\_**\_\_\_\_\_\_\_\_**

**Course Code：\_\_\_\_\_\_\_IEM 3501\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Course Type: □ Public Basic Course**

**□ General Education Course**

**□ Freshman seminar**

**□ Specialized Course**

**Teaching Unit：\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Completion Date：\_\_\_\_15/1/2021\_\_\_\_\_\_\_\_**

Southwest Jiaotong University Committee of Teaching Quality Guarantee

April 2016

The self-assessment report should comprehensively describe curriculum design, which includes, at minimum, the teaching objectives, teaching content, teaching strategies, learning support, evaluation and feedback for the course. During the semester, you should motivate students and ensure that the challenge is appropriate by enabling students to achieve the teaching goals throughout their whole semester of hard study, ultimately creating meaningful experiences for them. You are required to complete this self-assessment report by providing supporting materials, which may include the following 7 questions:

**Question 1:** What are the main objectives of this course? How are these objectives effective in meeting the related graduation requirements? Are the objectives multi-dimensional, and if so, how?

• Introduce students to general principles of discounted cash flow, single and multiple cash flow, present worth, future worth, equivalence, loans and bonds etc. This will allow students to work out and compare the economic performance of engineering projects.

• Develop students’ problem solving, critical thinking, information processing, and data interpretation skills which are essential for careers related to science, engineering and technology.

**Question 2:** Apart from lectures, what kinds of teaching methods (labs, presentations, essays, etc.) are used in this course? Illustrate the kinds of teaching objectives they can support and describe their effect.

Lecture presentations, lecture videos, quizzes and exams. These teaching methods support improving problem solving, critical thinking, information processing, and data interpretation skills

**Question 3:** In order to achieve the course objectives, how do you design the teaching strategies to connect various teaching activities smoothly? How does the strategy design motivate students' learning enthusiasm effectively?

I have designed and prepared detailed, informative lectures through DingTalk, which are recorded for students’ later revision purpose. Students are provided with practice questions after each chapter to familiarize themselves with the knowledge learned. I also guide them how to solve questions using Excel. Polls to investigate their feedback on the contents and questions are launched to ensure a smooth flow of teaching.

**Question 4:** How do you encourage students to study hard throughout the semester? How do you ensure the assessment fairness, especially for the consistency of scores for different sections within the same course?

I encourage the students to work out the practice questions first by themselves and raise any question they have. This is a challenging course so I try to make sure the students know that I care how they perform in the course.

**Question 5:** Apart from the textbooks, what resources can you provide to students or can guide students to supplement this course? How do they help students to learn better?

Lecture presentation and lecture videos were provided apart from the textbook. I have outlined and summarized the important topic in the lecture PPT slides then I presented the slides with textbook problems in the lecture videos.

**Question 6:** What methods do you utilize to support students? How are they effective? What methods will you utilize to help students who are struggling with the coursework?

Lecture PPT, lecture videos, quizzes and exam were the methods used. Microsoft Excel is extensively used to solve economic questions.

**Question 7:** What learning outcomes can students expect and what evidence can you provide to prove these outcomes? What evaluation methods are used in this course？

The learning outcomes are problem solving, critical thinking, information processing, and data interpretation skills. I have designed the questions presented in the quizzes and exams to assess the mastery of the skills.

Appendix 4

# SWJTU Emei Campus Exam(Quiz) Attendance List

**Semester 2 2019-2020**

Classroom Course

Date and Time of Exam

Exam Proctor Auxiliary Exam Proctor

| SWJTU ID | Name | SWJTU ID | Name | SWJTU ID | Name |
| --- | --- | --- | --- | --- | --- |
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Appendix 5

# SWJTU Emei Campus Midterm/Final Exam Record

**Semester 2 2019-2020**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Course |  | | Course Type( compulsory, elective, etc.) | |  | | | Date of Exam |  | | Classroom | |  | | | Total number of students in class |  | | Number of students attended | |  | | | Number of exam papers distributed |  | | Number of exam papers received | |  | | | Name(s) of absent student(s) |  | | | | | | | The name and exact time of the 1st student who handed in the exam paper |  | | | | | | | The exact time that two-thirds of the class handed in the exam |  | | | | | | | **Entrances and exits during the exam period** | | | | | | | | SWJTU ID | Name | Reason | | SWJTU ID | Name | Reason | |  |  |  | |  |  |  | |  |  |  | |  |  |  | | Did anything unusual happen during this exam ? If yes, please explain. | | | | | | | |  | | | | | | | | Exam Proctor |  | | SWJTU department(of proctor) | |  | | | Auxiliary Exam Proctor |  | | SWJTU department(of proctor) | |  | | | Note: Please print and sign all the required information above. | | | | | | | |

Appendix 6

# Quiz/ Exam Answer Sheet

Students will answer the exam questions in the paper. There is no separate answer sheet.

Appendix 7

# Course Analysis and Summary

What course components will make up the final grade? What is the percentage for each component?

Grade in this course will be calculated according to the completion of the following components:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Final exam: 60%, Others: 40%   |  |  | | --- | --- | | Evaluation Forms | Weight | | Participation | 10% | | Midterm | 30% | | Final | 60% | | Total | 100% | |

Have all the knowledge points been included in the final exam? How difficult is the final exam? What is the number of questions on the final exam?

Major knowledge points have been included in the final exam. There are two versions with equal modest difficulty. There are 10 MCQ, 3 short answers and 5 calculation questions in the final exam.

How much course knowledge have the students mastered? What problem solving abilities have they learned in this course?

On average, the students mastered about 75% of the course knowledge. The students learned economic problem solving, especially calculating and comparing the economic performance of engineering projects.

Please give a brief evaluation of the students’ performance, share your positive method(s) or experience(s), reflect on your teaching problem(s) and propose some solution(s).

The students’ performance was very good. It was a pleasure teaching them.

Other things you would like to explain.

Appendix 8

# Final Gradebook

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course |  | | | **Professor/Teacher** | | |  | |
| SWJTU ID | Chinese Name | English Name | Daily Grade  (Including quiz, mid-term exam etc..） | | | Final Exam Grade | | Total Grade |
|  |  |  |  | | |  | |  |
|  |  |  |  | | |  | |  |
|  |  |  |  | | |  | |  |
| **Evaluation:**  Daily Grade： %  Final Exam Grade： % | | | | | | | | |
| Signature**：** | | | | | **Date：** | | | |

**Note:**

1. **All scores are in the 100-point system and are integers.**
2. **Please print and sign all the required information above.**

Appendix 9

# Checklist of Course Materials for Submission

| **Number** | **Category** | **Material** | **Yes/No/Not applicable** | **Note** |
| --- | --- | --- | --- | --- |
| 1 | General materials | Syllabus | Yes |  |
| 2 | Course Schedule | Yes |  |
| 3 | Grade-book (electronic & printed version) | Yes | Your signature on the printed copy |
| 4 | Teaching PPTs | Yes |  |
| 5 | Assignments, coursework, and other things | Attendance records | N/A |  |
| 6 | Homework/quizzes/exam questions & answer papers and your suggested answers | Yes |  |
| 7 | PowerPoint presentations and/or video, etc. | Yes |  |
| 8 | Final exam | Final exam (electronic & printed version) | Yes |  |
| 9 | Final exam attendance list | N/A | Students’ hand-signed |
| 10 | Final exam record sheet | N/A | Your hand-signed |
| 11 | All the students’ exam papers and answer papers | Yes | Each answer paper with your signature |
| 12 | Answer key | N/A |  |
| 13 | Grading standards | Yes |  |
| 14 | Course analysis and summary | Yes |  |
| 15 | Alternate final exam | Final exam(electronic & printed version) | Yes |  |
| 16 | Answer key | N/A |  |
| 17 | Grading standards | Yes |  |
| 18 | Others | Undergraduate Course Self-Assessment Report | Yes |  |