ISOM 2020 – Coding for Business

Fall Semester, 2021 (Sept. 1st ~ Oct. 15th)

Lecture

Section	Instructor	Day	Time	Venue
L7	Prof. Jia JIA	Thursday	10:30 – 12:20	Lecture Theater G
L8	Prof. Jia JIA	Thursday	15:00 – 16:50	Lecture Theater K

Lab

Section	Day	Time	Venue
LA1	Monday	11:30 – 13:20	G005, LSK Bldg
LA2	Friday	09:00 – 10:50	G005, LSK Bldg
LA3	Thursday	17:00 – 18:50	G005, LSK Bldg
LA4	Friday	13:00 – 14:50	Real Time Online
LA5	Wednesday	17:00 – 18:50	G005, LSK Bldg
LA6	Tuesday	10:30 – 12:20	G005, LSK Bldg
LA7	Tuesday	15:30 – 17:20	G005, LSK Bldg
LA8	Wednesday	10:30 – 12:20	G005, LSK Bldg

Instructor:	Prof. Jia JIA (justinjia@ust.hk)
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Office:	LSK 5045
Office Hours:	By appointment
Teaching Assistant:	Ray Pang (Mr.) / Ada (Ms.) (isom2020fall@ust.hk)
Tel:	2358-7653
Office:	LSK 4065
Office Hours:	Tuesday 14:00~15:00 or by appointment.
Course Website:	https://canvas.ust.hk

COURSE DESCRIPTION

With the proliferation of business data and the need to analyze data for business insights, it becomes increasingly important for business students to have a basic understanding of coding that can help them to accomplish business goals. This course intends to introduce students to basic programming concepts and skills for business data coding and business problem-solving. Using Python as an illustrative programming language, this course provides students with a basic understanding of programming concepts and syntaxes, including data types, associated methods and functions, and control flow statements. Through the process of learning a programming language, students will also develop logical and critical thinking skills and be able to tackle simple business problems with coding.

LEARNING OUTCOMES

By the end of this course, students will be able to:

        (1) Acquire general programming knowledge with Python

(2) Model business data with Python data types

(3) Process business data with Python supported operations and methods

(4) Illustrate business problem solving with coding skills

(5) Improve logical and critical thinking ability with coding skills

TEACHING APPROACH

In general, the teaching approach of this course is based on the notion of sustained, deep learning by applying knowledge through programming, hands-on practices, lab activities and individual project.

Teaching & Learning Activities	Roles in the Course	Learning Outcomes addressed
Lecture	Explain key concepts to students using an active learning approach. In-class exercises will be provided to facilitate learning.	1, 2, 3, 4, 5
Laboratory	Apply concepts presented in lectures to hands-on programming exercises.	1, 2, 3, 4, 5
Weekly Quiz	Evaluate the knowledge	4,5
Individual Assignment & Project	Require students to practice programming skills, as well as apply such skills and knowledge to solving business analytics problems.	1, 2, 3, 4, 5

EVALUATION

Components	Percentage of the grade
A. Weekly Quiz	30%
B. Lab Activities	20%
C. Final Exam	40%
D. Individual Project	10% (plus up to 5% bonus)
TOTAL:	100%

There will be 4 Weekly Quizzes consisting of 15 questions each. The Weekly Quizzes will be launched on Canvas during Week 2, 3, 4 & 5. Students are required to submit their answer before the deadline. No late submission will be accepted for Weekly Quizzes.

For the Individual Project, students will acquire 10% of the grade by submitting a workable programming code with designated tasks completed. A bonus score up to 5% will be added on top for outstanding work.

* Late Submission Policy on Lab Activities and Individual Project

Late submission within 24 hours after the corresponding due date and time will receive a 50% penalty, while late submission beyond 24 hours will NOT be accepted (i.e. zero points)! Any outstanding requests regarding the assignments and the individual project shall be made duly BEFORE the deadline, not after. All requests made after the deadline will be dismissed automatically. It is the responsibility of the students to ensure the submissions made on Canvas are accurate. In any case, if the instructor and/or TAs are unable to open the file, you will receive a score of zero.

MATERIALS

There is no textbook for this course. Lecture notes and extra exercises (either in pdf or ipynb format) will be posted on the course website.

Many useful resources are also available online, for example, an online book [Object-Oriented Programming in Python](#).

SOFTWARE

- Anaconda / Jupyter notebook
- Google Colab

ACADEMIC INTEGRITY

Academic integrity is a critical value of the university community. Integrity violations destroy the fabric of a learning community and the spirit of inquiry that is vital to the effectiveness of the University. Anyone caught cheating, plagiarizing, and any other form of academic dishonesty will have their course grade lowered by at least one letter grade. Please remember the current university rule: "If a student is discovered cheating, regardless of how minor it is, the course grade will appear on the student's record with an X, to show that the grade resulted from cheating. This X grade stays on the record until graduation. If the student cheats again and "earns" another X grade, the student will be dismissed from the University."

Plagiarism is copying anything (text or ideas) from another source without citing that source. If you use another person's idea you must cite it, even if you rewrite the idea in your own words. Extreme care must be taken to avoid the passing of other's work as one's own. You are required to provide appropriate citations when you use ideas and arguments or otherwise draw on others' work. If you use research from another source or the Web you MUST cite the source. This is required even if you use only the general idea and not the exact words.

LEARNING ENVIRONMENT

We welcome feedbacks on our teaching throughout the semester. You are encouraged to contact me or the TA any time you have any questions, suggestions, concerns, or would like to ask for advice.

TENTATIVE SCHEDULE

WEEK	LECTURE	LAB
1 Sep. 2	Introduction to Syllabus Introduction to Python Print, Variable, Data Type, Conversion input()	
2 Sep. 9	List - Index and slicing (negative, step) - append() - Functions (len/max/min/sum)	1: Software installation and programming environment
3 Sep. 16	if..elif..else Relational and Boolean operators	2: print()/input()/variable
4 Sep. 23	for .. in .. range() break	3: List
5 Sep. 30	Practice Questions Explanations Practice: Bonus Project	4: if...elif...else
6 Oct. 7	Final Exam	5: Bonus Project - List - If…elif…else - For…in
7 Oct. 14 (*holiday*)	Intro to data wrangling: *pandas*	N/A

* Oct 14th is a public holiday. The instructor will provide a pre-recorded lecture video on the planned topic on Monday of that week. Extra office hours will also be offered to address any questions you may have when watching the video.