ISOM 2020 – Coding for Business
Spring 2021 (Feb. 1st ~ March. 19th)

Lecture

Section	Days	Time
L6	Monday	3:00pm~4:50pm

Lab

Section	Days	Time
LA1	Wednesday	6:00pm~7:50pm
LA2	Tuesday	3:00pm~4:50pm
LA3	Tuesday	9:00am~10:50am
LA4	Friday	9:00am~10:50am
LA5	Thursday	9:00am~10:50am
LA6	Tuesday	11:30am~1:20pm
LA7	Friday	11:00am~12:50pm
LA8	Thursday	1:00pm~2:50pm

Instructor: Jia JIA, Ph.D. (justinjia@ust.hk)
Office: LSK 5045
Office Hours: By appointment.

Teaching Assistant: Hilary CHEUNG (Mr.) (isom2020@ust.hk)
Tel: 2358-7653
Office: LSK 4065
Office Hours: 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, and individual assignments and project.

Teaching & Learning Activities	Roles in the Course	Learning Outcomes addressed
Lecture	Pre-class videos will explain key concepts and programming syntaxes; hands-on in-class experience; take-home exercises will be provided to facilitate learning.	1, 2, 3, 4, 5
Laboratory	Pre-class videos will introduce supporting syntaxes; more practices and applications of lecture contents; hands-on programming exercises.	1, 2, 3, 4, 5
Individual Assignment	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. Pre-class Video and Weekly Quiz	15%
B. Individual Assignment	25%
C. Final Exam	60%
TOTAL:	**100%**

A. Pre-class Video and Weekly Quiz *(15%)*

Students are expected to watch pre-class videos before each lecture (week 1~ week 5) and lab (week 2~week 6). The videos cover important concepts and programming skills that will be covered in the following lecture/lab. Students who fail to watch the videos before each lecture/lab may NOT be able to follow in the lecture/lab. **The videos are considered the prerequisite for the respective lecture/lab.** After watching the videos, students MUST complete a short quiz on Canvas. Each quiz comprises 2 points towards the final grade, and there will be a total of 10 quizzes (i.e., 5 from lecture + 5 from lab, so a maximum of 20 points). But the total grade that a student can earn for video watching and quizzes is **capped at 15 points**, which means that if a student can get 15 or more points, then the student will get a full 15% on this component of the course grade. The extra points you get will not be brought to other grading components. For lectures, quizzes will be offered from week 1 to week 5. For labs, quizzes will be offered from week 2 to week 6. More details of each week's videos and quizzes will be provided on Canvas.

NO late submission of the quizzes **for whatever reason** will be accepted, as a 25% room for error has already been built into the grading scheme. Students shall take full responsibility for losing any part of this score for not obeying the above instructions. Emailing the TA or the instructor will NOT change this part of the grade as all grades will automatically be calculated and posted on Canvas.

B. Individual Assignment (25%)

There will be **ONE individual** assignment. Details of the assignment will be provided later in class. Late submission **within 24 hours after the due date and time will receive a 30% penalty**; while late submission **beyond 24 hours** will **NOT** be accepted (i.e. zero points)!

C. Final Exam (60%)

There will be ONE final exam scheduled on **March 17th (Wednesday) 7:00pm - 9:00pm**. Details of the exam protocol will be provided later in the semester.

* Grade appeal

All scores will be uploaded to Canvas when ready. It is always the responsibility of the students to check their scores and make sure they are correct. Any appeal to score must be filed through email to isom2020@ust.hk, with detailed grounds, **within 24 hours after its release**. Once the 24 hours are passed, **no further handling** will be made. Your final grade will depend on the score on Canvas.

MATERIALS

1. **MAIN READING**

   There is no textbook for this course. PowerPoint slides and Jupyter notebook notes are the major reading materials.

2. **SOFTWARE**

   - Zoom (Required)
   - Anaconda (Required) (Installation guide is provided in a separate document)
     - Jupyter notebook

OTHERS

Zoom Etiquette

- You are highly recommended to join the class via Canvas → Zoom Meeting tab.

- **Turning on your camera** would be most appreciated. Your facial expressions and gestures are important sources of cues that could help me know what you have learned or what you have trouble with, so I could adjust my teaching accordingly. Using the virtual background is discouraged as it significantly slows down the connection speed for the entire class.

- Please rename your display name to the name you want the instructors and TA to address you. You do not need to put your SID as your display name.

- Using the chat function for course-related discussion is encouraged.

- Please contribute as actively as you could during lectures and labs. Maintaining good interaction between you and me is the key to the success of online teaching and learning.

- **As a matter of respect, you should find a quiet place to take the class, instead of, but not limited to, on a bus, in a restaurant, or any distracting places.**

Email Policy

Since this is a big class, with about 500 students in total, it would be difficult for the instructors and the TA to address your email effectively without a guideline. You need to put **[ISOM2020 L6 LAX]** (X being the session number, e.g., ISOM2020 L6 LA5) **at the beginning of the subject line of your email along with your email subject**. Failure to do so may result in a longer response time. As expected, there will be numerous emails when it is closer to the due dates. If you need any assistance, raise them **as early as possible**. Note that neither the instructor nor the TA will provide direct answers to the assignment.

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 may stay on the record even after 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 others' 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. Limitations of what sources you could use will be stated in the respective instructions for the components.

Learning environment

We welcome feedbacks on our teaching throughout the semester. You are encouraged to contact us at any time when you have any questions, suggestions, concerns, or would like to ask for advice. Please remember, we are here to help you learn. So please do NOT hesitate to contact us at any time, so we can do our job better!

TENTATIVE SCHEDULE

WEEK	LECTURE	LAB
1 (Feb 1~5)	1. Introduction to Syllabus Introduction to Python Print, Variable, Type, Conversion, Input	0: Software installation and programming environment
2 (Feb 8 ~ Feb 12)	2. Collective Variables	1. Print; Arithmetic operators/rules; Relational operators; Type & Conversion; round/input
3 (Feb 15~Feb 19)	3. Conditional statement	2. Collective Variables
4 (Feb 22 ~ Feb 26)	4. Loops	3. Conditional statement
5 (Mar 1 ~ Mar 5)	5. Practice & Revision	4. Loops
6 (Mar 8 ~ Mar 12)	Pandas (Preparation for ISOM2600)	5. Dry-run for exam Review of common mistakes
7 (Mar 15 ~ Mar 19)	*Final Exam*	*N/A*

* Feb 12th~Feb 15th are public holidays. Students affected may choose to attend other sections or watch Zoom recordings.

* Assignment Schedule: Will be released on Feb 26th, and due on March 12th (estimated).

* Final Exam Schedule: **Wednesday March 17th, 7:00pm~9:00pm** *(please mark the date & time!)*