

ISOM3230: Business Programming in VBA

Prof. James Kwok

LSK 4080

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Course goals

This course will provide students with skills and knowledge of business applications programming and experience in designing and developing business applications.

Learning outcomes

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

1. Utilize programming concepts to address business challenges
2. Explain the logic and flow of provided programs
3. Anticipate program outputs accurately
4. Formulate programs employing prevalent programming techniques
5. Recognize and rectify logical and runtime errors within programs

Course description

This course is tailored to equip students with a comprehensive understanding of programming, specifically focusing on programming for business applications. Through this course, students will delve into the rationale behind incorporating programming into their respective professions, the significance of constructing business applications, and the impact of these applications on business workflows. Additionally, they will explore the heightened utility and advantages that programming can bring to the realm of business applications.

Furthermore, students will become adept at grasping fundamental programming syntax and structure. They will gain the proficiency to construct rudimentary business applications utilizing high-level programming languages.

It is important to note that this course is centered around programming. Students are expected to engage with online resources independently to enhance their learning. Throughout the course, students will be tasked with researching VBA syntax through sources like Google, which might not be extensively covered in the course materials but are necessary for fulfilling course assignments and tasks.

Assessment scheme

Evaluation and grading constitute intrinsic components of any university course. Nevertheless, the most pivotal assessment lies in the students' self-evaluation. Did the course present novel and valuable concepts and skills? Did it prompt a shift in perspectives concerning oneself, collaborative work, and organizational dynamics? If such transformations occurred, the students' endeavors in the course have been truly meaningful.

The final grade distribution will be determined based on the following percentages, which will be used to evaluate the course objectives:

Components	Learning outcomes assessed	Percentage of the grade
A. Assignment (x1)	1, 2, 3, 4, 5	15%
B. Final Exam	1, 2, 3, 4, 5	85%
TOTAL:		100%

A. Assignment (15%) (Individual)

The aims of the assignments encompass the analysis and resolution of business predicaments through VBA utilization. There is only one individual assignment. The specifics of the assignment will be communicated at a subsequent point in the course.

B. Final Exam (85%)

A comprehensive Final Exam will encompass **ALL topics** covered during the semester. Additional details will be furnished during the final class session.

Make-up exams will not be conducted except in cases of exceptional circumstances beyond a student's control, such as medical emergencies. Should an absence arise due to a medical emergency, students are required to submit relevant documentation issued by a registered medical practitioner to the course instructor via email. This submission is necessary to be eligible for potential consideration regarding a make-up exam. The format for the make-up exam will be in the form of an essay.

(Attention: Students who are eligible to take the make-up exam are required to compose a research article consisting of an introduction, references, proper citations, and other essential sections. This article must be completed within a few hours of its assignment. Please note that there will be **no opportunity for a second make-up exam under any circumstances. Failing to submit the research article for any reason, such as email or internet issues, will result in a grade of ZERO for the exam.)**

Remarks:

- **Feedback on all assignments and assessments will be provided within 10 working days.**
- **A summary highlighting common mistakes or key deficiencies in answering questions will be shared with students.**
- **Additionally, students have the opportunity to schedule a meeting with our Teaching Assistant (TA) to review their assignments and examination papers, gaining insights into their mistakes and deficiencies. This review session must take place within a specified deadline, typically two working days after the scores are released. After this deadline, students **will not be allowed** to review their assignment and examination papers.**

Grade appeal

Upon completion, all scores will be posted on Canvas. It is incumbent upon the student to review their scores and verify their accuracy. If any discrepancies arise, score appeals must be submitted via email to jkwok@ust.hk. It is important to note that score appeals will not be entertained once the designated checking/appeal period has elapsed (e.g., two working days subsequent to the score release) if applicable.

[In instances where a student is unable to check their paper within the stipulated checking period, the student's score will be deemed final by default. Regrettably, we won't be able to modify or rectify the score beyond the checking/appeal period.]

Use of generative AI

Students are permitted to utilize generative artificial intelligence (AI) tools exclusively for enhancing programming tasks within this course. Nonetheless, students are obligated to duly acknowledge and credit any employment of generative AI. In the context of producing video presentations, employing generative AI tools is strictly prohibited for students.

- Leveraging ChatGPT, individuals can effortlessly generate content devoid of grammatical errors. As a result, during assessment, we presuppose that the content is devoid of any grammatical blunders.
- During the grading process, our emphasis is on two key aspects: "**Proficiency in VBA**" and "**Understanding of Business and User Requirements.**"
- We anticipate students to acquire coding skills by independently employing ChatGPT. For instance, when seeking additional practice and examples, ChatGPT can provide valuable assistance.

	ChatGPT only (Other generative AI tools are NOT allowed in this course)
Assignment	✓
Final Exam	✗
Lecture and Lab	✓
Outside the class (for learning)	✓ (highly recommended)

Efficient Email Communication Guidelines

To ensure prompt assistance, please include [Course Code - LX] (X being the section number), e.g., [ISOM3230-L1] at the start of your email's subject line. Neglecting this may lead to delays in our response time.

Anticipate a surge in email volume as deadlines approach. For timely support, address your queries ahead of time and utilize instructor and TA office hours.

Kindly note that **direct assignment answers won't be furnished by the instructor or TAs.** Your understanding and collaboration are appreciated.

Student learning resources

Text and Reference Books

No particular textbooks or reference books are mandatory for this course. The learning materials will comprise diverse readings accessible on Canvas.

Course Website

Course content updates and other pertinent information will be communicated through the course website - <http://canvas.ust.hk>. It is advisable for students to consistently monitor this platform throughout the semester.

Software requirements

- Microsoft 365 (Windows) or Microsoft Office 2021 (for Windows)
- ChatGPT 3.5 or above

Note: Mac users are required to use Microsoft Excel (Windows version) during the class.

Course schedule

The course is offered in lecture session and laboratory session.

L1: Tuesday and Thursday 12:00pm – 01:20pm
Venue: G009B, CYT Bldg

LA1: Tuesday 10:30am – 11:20am
Venue: Room G021, LSK Bldg

LA2: Tuesday 09:00am – 09:50am
Venue: Room G021, LSK Bldg

Tentative Course Schedule. Please visit Canvas for updated schedule, readings, and assignments.

Schedule of Lecture (Tentative)

Wk	Date	No.	Lecture	Assignment Due/Remark
1	31-Jan	L01a	Intro. to Course, Intro. to Programming	
2	6-Feb	L02a	Intro. to Business Applications	
	8-Feb	L02b	VBA Basics	
3	13-Feb		No class: The fourth day of Lunar New Year	Add/Drop deadline: 16 Feb
	15-Feb	L03a	VBA Basics	
4	20-Feb	L04a	OOP, Workbooks, and Worksheets	
	22-Feb	L04b	Workbooks, and Worksheets	
5	27-Feb	L05a	Ranges	
	29-Feb	L05b	Ranges	
6	5-Mar	L06a	If-then-else and select-case	
	7-Mar	L06b	If-then-else and select-case	
7	12-Mar	L07a	Looping	
	14-Mar	L07b	Looping	
8	19-Mar	L08a	Methods	Asg. 1 Release on 21 Mar
	21-Mar	L08b	Methods	
9	26-Mar	L09a	UserForm	
	28-Mar		No class: Mid-Term Break	
	2-Apr		No class: Mid-Term Break	
	4-Apr		No class: Ching Ming Festival	
10	9-Apr	L10a	Solver	
	11-Apr	L10b	Solver	

11	16-Apr	L11a	Arrays and Formulas	
	18-Apr	L11b	Arrays and Formulas	
12	23-Apr	L12a	Checkboxes	Asg1: Due at noon, 26 Apr
	25-Apr	L12b	Checkboxes	
13	30-Apr	L13a	NPV	
	2-May	L13b	NPV	
14	7-May	L14a	Asg. 1 Presentation	
	9-May	L14b	Revision	

Schedule of Laboratory (Tentative)

Wk.	LA1, LA2	No.	Topics
2	6-Feb	LA01	Intro to Excel (Win and Mac) / ChatGPT
3	13-Feb		No class: The fourth day of Lunar New Year
4	20-Feb	LA02	VBA Basics, Variables, Data, Buttons, and IO
5	27-Feb	LA03	Workbooks and Worksheets
6	5-Mar	LA04	Ranges
7	12-Mar	LA05	If-then-else and select-case
8	19-Mar	LA06	Looping
9	26-Mar	LA07	Methods
9	2-Apr		No class: Mid-Term Break
10	9-Apr	LA08	UserForm
11	16-Apr	LA09	Solver
12	23-Apr	LA10	Arrays and Formulas
13	30-Apr	LA11	Checkbox
14	7-May	LA12	NPV and (Revision)

Contact Details for Instructor and TA

Prof. Kwok's office is located in room LSK4080, and he extends a warm invitation for you to visit during his office hours or at your convenience for any queries you may have. For urgent concerns, feel free to reach out via email (jkwok@ust.hk) or phone (2358-7652); however, he does emphasize that email is the preferred mode of communication as he frequently monitors it. Additionally, the Teaching Assistant (TA) assigned to this course is available to address inquiries related to grading, attendance, assignments, and any administrative matters.

Academic honesty

Upholding academic integrity stands as a fundamental principle within our university community. Any breach of integrity undermines the foundation of our learning environment and the essence of inquiry that is vital for the institution's effectiveness. I maintain a zero-tolerance stance towards cheating, and no exceptions will be entertained. Students found engaging in acts of cheating, plagiarism, or any form of academic dishonesty will face a reduction of their course grade by a minimum of one letter grade. Moreover, it is my responsibility to report any instances of unethical conduct or indications of dishonesty in this course to the University.

Please bear in mind the current university regulation: any occurrence of cheating, irrespective of its magnitude, will result in an "X" grade notation on the student's academic record, signifying that the grade was attained through dishonest means. This "X" grade will persist on the student's record until graduation. Should a student be caught cheating again and subsequently receive another "X" grade, they will be dismissed from the University.

Plagiarism encompasses the act of copying text or ideas from external sources without appropriate citation. Even if you rephrase the concept using your own words, citing the origin is necessary when utilizing someone else's idea. It is imperative to exercise extreme caution to prevent presenting someone else's work as your own. Proper citations are obligatory when incorporating external sources' ideas, arguments, or any content. Whether drawing from research or the Internet, it is mandatory to acknowledge the source, even if you employ the general notion rather than verbatim wording.

Learning environment

I wholeheartedly embrace feedback on my teaching during the entirety of the semester. I strongly encourage you to reach out to me or my TA whenever you have questions, suggestions, concerns, or if you seek advice. Your input is valued and will contribute to enhancing the learning experience. Feel free to contact us at your convenience.