

Tamkang University Academic Year 112, 2nd Semester Course Syllabus

Course Title	PYTHON AND ACCOUNTING PRACTICE	Instructor	HWANG, TIEN-WEI
Course Class	TLAXM1A MASTER'S PROGRAM, DEPARTMENT OF ACCOUNTING, 1A	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Selective ◆ One Semester
Relevance to SDGs	SDG4 Quality education SDG8 Decent work and economic growth SDG9 Industry, Innovation, and Infrastructure		
Departmental Aim of Education			
I. Develop potential research capability. II. Able to integrate multiple fields. III. Uphold ethics & morality standards. IV. Cultivate international perspective. V. Develop macro-view of the future.			
Subject Departmental core competences			
A. Students can demonstrate that they have program advanced knowledge of business and management.(ratio:20.00) B. Students can demonstrate that they have analytical and problem-solving capability. (ratio:30.00) C. Students can demonstrate their oral and written communication skills.(ratio:20.00) D. Students can demonstrate team work and interpersonal skill.(ratio:20.00) E. Students are able to demonstrate effective considerations of ethical issues in business situation.(ratio:10.00)			
Subject Schoolwide essential virtues			
1. A global perspective. (ratio:10.00) 2. Information literacy. (ratio:30.00) 3. A vision for the future. (ratio:20.00) 4. Moral integrity. (ratio:10.00) 5. Independent thinking. (ratio:10.00) 6. A cheerful attitude and healthy lifestyle. (ratio:5.00)			

7. A spirit of teamwork and dedication. (ratio:10.00)

8. A sense of aesthetic appreciation. (ratio:5.00)

Course Introduction

This course seamlessly blends Python programming with accounting practices, empowering you to harness Python for streamlined data handling, numerical analysis, and visualization in accounting. The schedule unfolds essential Python concepts, systematically building the foundation for applying programming skills to accounting tasks. By the course's conclusion, you'll possess practical Python skills to elevate your proficiency in accounting, preparing you adeptly for challenges at the dynamic intersection of programming and accounting.

The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of the course's veracity, conception, procedures, outcomes, etc.

II.Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal, morals, attitude, conviction, values, etc.

III.Psychomotor: Emphasis upon the study of the course's physical activity and technical manipulation.

No.	Teaching Objectives	objective methods
1	Grasp fundamental Python basics and recognize their relevance to accounting, laying the groundwork for practical application.	Cognitive
2	Explore the creation of straightforward numerical programs tailored specifically for accounting tasks, enhancing your ability to apply Python in numerical analysis.	Cognitive
3	Develop practical skills in writing functions with a focus on scoping and abstraction, emphasizing their crucial role in accounting processes.	Psychomotor

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCDE	12345678	Lecture, Discussion	Testing, Discussion(including classroom and online), Report(including oral and written)

2	ABCDE	12345678	Lecture, Discussion	Testing, Discussion(including classroom and online), Report(including oral and written)
3	ABCDE	12345678	Lecture, Discussion	Testing, Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	113/02/19 ~ 113/02/25	Introduction; Ch 1 Getting started	
2	113/02/26 ~ 113/03/03	Ch 2 Introduction to Python	
3	113/03/04 ~ 113/03/10	Ch 3 Some simple numerical programs	
4	113/03/11 ~ 113/03/17	Ch 4 Functions, scoping, and abstraction	
5	113/03/18 ~ 113/03/24	Ch 5 Structured types and mutability	
6	113/03/25 ~ 113/03/31	Ch 6 Recursion and global variables	
7	113/04/01 ~ 113/04/07	No Class- Official	
8	113/04/08 ~ 113/04/14	Ch 7 Modules and files	
9	113/04/15 ~ 113/04/21	Ch 8 Testing and debugging	
10	113/04/22 ~ 113/04/28	Ch 9 Exceptions and assertions	
11	113/04/29 ~ 113/05/05	Ch 10 Classes and object-oriented programming	
12	113/05/06 ~ 113/05/12	Ch 11 A simplistic introduction to algorithmic complexity	
13	113/05/13 ~ 113/05/19	Ch 12 Some simple algorithms and data structures	
14	113/05/20 ~ 113/05/26	Ch 13 Plotting and more about classes	
15	113/05/27 ~ 113/06/02	Ch 16 Random walks and more about data visualization	
16	113/06/03 ~ 113/06/09	Ch 21 Randomized trials and hypothesis checking	
17	113/06/10 ~ 113/06/16	Final Exam Week (Date:113/6/11-113/6/17)	
18	113/06/17 ~ 113/06/23	Ch 23 Exploring data with pandas	

Key capabilities	self-directed learning International mobility Information Technology Problem solving
Interdisciplinary	STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist) Competency-based education 'competency exploration' sustained competency or global issues STEEP (Society, Technology, Economy, Environment, and Politics)
Distinctive teaching	
Course Content	Computer programming or Computer language (students have hands-on experience in related projects) Logical Thinking
Requirement	
Textbooks and Teaching Materials	Using teaching materials from other writers:Textbooks Name of teaching materials: John V. Guttag. Introduction to Computation and Programming Using Python. (ISBN: 9780262542364)
References	
Grading Policy	◆ Attendance : % ◆ Mark of Usual : % ◆ Midterm Exam : % ◆ Final Exam : 70.0 % ◆ Other 〈Participation〉 : 30.0 %
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at http://info.ais.tku.edu.tw/csp or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at http://www.acad.tku.edu.tw/CS/main.php . ※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.