ATENEO DE MANILA UNIVERSITY
Loyola Schools

SYLLABUS FOR UNDERGRADUATE COURSES
MAJOR, CORE CURRICULUM and ELECTIVES
Student Copy

A. COURSE INFORMATION

COURSE NUMBER	ITMGT25			**NO. OF UNITS**	3
COURSE TITLE	Information Technology Application Programming				
PREREQUISITE/S					
DEPARTMENT/ PROGRAM	Quantitative Methods and Information Technology/ Management Engineering			**SCHOOL**	John Gokongwei School of Management
SCHOOL YEAR	2022-2023			**SEMESTER**	Intersession
INSTRUCTOR/S	ATAIZA, CHRISTIAN DOMINIC CIRIO, BIANCA YSABELLE ILAGAN, JOSE RAMON				
VENUE	ONLINE/HYBRID	**SECTION**	F	**SCHEDULE**	D 3:30 pm - 5:30 pm
			N1		T 8 am - 11a am Th 8 am - 12:30 pm
			B		D 9:30 am - 11:00 am
			C		D 11:00 am - 12:30 pm
			G		D 5:00 pm - 6:30 pm
			H		D 6:30 pm - 8:00 pm

B. COURSE DESCRIPTION

This course aims to provide students with a foundation in information technology and programming logic in preparation for more advanced courses. Alongside an overview of fundamental information technology and programming concepts, the course will also survey various applications of information technology in business, such as business analytics, mathematical modeling and simulation, and game/application development.

WHERE IS THE COURSE SITUATED WITHIN THE FORMATION STAGES IN THE FRAMEWORK OF THE LOYOLA SCHOOLS CURRICULA	
X	FOUNDATIONS: Exploring and Equipping the Self
	ROOTEDNESS: Investigating and Knowing the World
	DEEPENING: Defining the Self in the World
	LEADERSHIP: Engaging and Transforming the World

C. COURSE LEARNING OUTCOMES

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

COURSE LEARNING OUTCOMES	
1	Describe and use the basic components of their computers' operating systems.
2	Build and compose programming functions and subroutines to achieve business ends.
3	Transform raw sets of data into useful analyses and visualizations for specific target audiences.
4	Produce software prototypes that manage transactions with persistent data stores.
5	Manage and contribute to small software projects.

D. COURSE OUTLINE and LEARNING HOURS

Course Outline	CLOs	Estimated Contact or Learning Hours
Module 1: Foundations	1	2
Module 2: Basic Python	1, 2	4

Module 3: Controlling your Program's Flow	2	4
Module 4: Working with Complex Data	2, 3	8
Module 5: Data Analysis and Data Visualization	3	8
Module 6: Tying Everything Together	3, 4	12
Module 7: Capstone	5	22

E. ASSESSMENTS AND RUBRICS

Assessment Type	Assessment Tasks	Assessment Weight	CLOs
Individual	**Formative Tasks** Includes any tasks intended by the instructor to develop students' skills. Total: 300 points	30%	1, 2, 3
Individual	**Summative Assessments** Includes at least two (2) major tests. Each test evaluates students' abilities to apply programming concepts to solve real business problems. Total: 400 points	40%	3, 4, 5
Group	**Capstone Project** Includes one (1) group project that aims to develop a useful business application. The instructor has the final say on the maximum group size, but groups should ideally consist of no more than three (3) students. Total: 300 points	30%	5

F. TEACHING and LEARNING METHODS

TEACHING & LEARNING METHODS and ACTIVITIES	CLOs
Written Material	1, 2, 3, 4
Videos	1, 2, 3, 4
Synchronous Lectures	1, 2, 3, 4, 5

Whiteboarding Activities	2, 3, 4
Exercises	2, 3
Case Discussions	3, 4, 5
Live Coding	1, 2, 3, 4, 5
Mini Projects	3, 4, 5

G. REQUIRED READINGS

Notes, handouts, miscellaneous lab files, and online links to be posted by the instructor in the Learning Management System (LMS).

H. SUGGESTED READINGS

Software Carpentry, The Unix Shell. *https://swcarpentry.github.io/shell-novice/*

Franzini, G. Windows Command Line, Univerona Workshop , 26 Oct. 2017, https://enexdi.sciencesconf.org/data/pages/windows_vs_mac_commands_1.pdf

Chacon, S. & Straub, B., Pro Git 2nd Edition, 2014

Downey, A., Think Python, O'Reilly Media, 2012.

Yau, N., Data Points: Visualization That Means Something, O'Reilly Media, 2013

Yau, N., Visualize This: The Flowing Data Guide to Design, Visualization, and Statistics, O'Reilly Media, 2011

Kleppmann, M. Designing Data-Intensive Applications: The Big Ideas Behind Reliable, Scalable, and Maintainable Systems, O'Reilly Media, 2017

I. GRADING SYSTEM

RAW SCORE	LETTER GRADE
920-1000	A
860-919	B+
800-859	B
740-799	C+
670-739	C
600-669	D
0-599	F

J. CLASS POLICIES

- The primary means of delivering course material in this class is the Canvas Learning Management System (LMS). All official announcements and changes in course content will be done through the LMS.

- Should a student wish to ask questions or consult with the teacher, the official consultation hours are found in Section K of this syllabus. Consultation time outside of the hours specified in the table may be at the discretion of the teacher and the class but is highly discouraged.

- While this class has been designed to be asynchronous (on-demand and no definite fixed time to consume learning material), the teacher may call for synchronous (live and scheduled) sessions as needed. These synchronous sessions, however, will be recorded for the benefit of those who will not be able to make it during these sessions.

- All students enrolled in a hybrid class are expected to learn onsite at least once (for the TTh/MWF schedule) and twice (for the daily schedule) per week. The standard schedule for the online/onsite classes will be set at the start of the semester.

- Academic Integrity Policy: Cheating will not be tolerated. Cheating in any requirement will result in a minimum penalty of having a grade of -50 for that requirement and will be reported to the appropriate authorities, as provided for by the Student Handbook. Duplicated projects/lab exercises will merit penalties for both the student who copied and the student from whom the work was copied.

- All work submitted must be accompanied by a **Certificate of Authorship (COA)** filled up and signed by either an individual or all group members. The template of the COA will be available in the LMS.

K. CONSULTATION HOURS

NAME OF FACULTY	EMAIL	SECTION	DAY/S	TIME
ATAIZA, CHRISTIAN DOMINIC	cataiza@ateneo.edu	G	D	1700-1830
ATAIZA, CHRISTIAN DOMINIC	cataiza@ateneo.edu	H	D	1830-2000
CIRIO, BIANCA YSABELLE	bcirio@ateneo.edu	F	D	1530-1700
CIRIO, BIANCA YSABELLE	bcirio@ateneo.edu	N1	T Th	0800-1100 0800-1230
ILAGAN, JOSE RAMON	jrilagan@ateneo.edu	B	D	0930-1100
ILAGAN, JOSE RAMON	jrilagan@ateneo.edu	C	D	1100-1230

L. ADDITIONAL NOTES