

THE UNIVERSITY OF TEXAS AT EL PASO
Accounting and Information Systems Department

Michael L. Gonzales, PhD

Email: mlgonzales2@utep.edu; Department Office: BUSN 320

CIS 3385 Advanced Application Programming, Fall 2018

IMPORTANT: This is an ADVANCED APPLICATION programming class. Students will be actively programming from the first week of class to the last. Students are expected to dedicate hours of development time outside of class.

Class Hours: 9:00 – 10:20 am, Monday and Wednesday, BUSN 320

Office Hours: Before class, by appointment ONLY through e-mail

Prerequisite: CIS 3385

Online Books: The online books listed will be posted on Blackboard

- Think Python: How to think like a Computer Scientist
- A Byte of Python
- Python 2.7 Quick Reference

Additional reading material will be announced during the semester as determined by Dr. Gonzales.

Course Software: Computer Lab technicians will install relevant software in students VM environment, including

- IDLE (Python GUI)
- Microsoft SQL and Database
- Excel and CSV files

Course Description: Programming concepts will be used to solve real world business problems. Strong emphasis will be placed on hands-on structured programming. This course is designed for students to experience real-world Information Systems application requirements for data integration between market leading technologies. Using actual IS projects this course will guide students through an advanced application development effort, including the following use cases:

- Using Python structure programming, students will develop a middle-tier application that moves data from files at the OS level through Python and onto MSSQL tables.
- Developing and executing Python and SQL for manipulating data.

The objective of this course is to guide students through several important technologies used in MIS and related, real-world use cases.

Course Outline
(Professor reserves the right to change the course syllabus.)

Week	Topic	Language	Readings and Exams
08/27	- Course Review and VM testing - Review of Modern IS Challenges		
09/03 09/05	<<< CLOSED >>> - Python Review	Python	Byte of Python – Ch. 5 & 6
09/10	- Variables and Expressions - Input and Functions	Python	Think Python – Ch. 2 & 3 Byte of Python – Ch. 7 & 9
09/17	- Variables and Expressions - Input and Functions	Python	Think Python – Ch. 2 & 3 Byte of Python – Ch. 7 & 9
09/24 09/26	- Python Exam Review - Exam #1		Practical Exam #1
10/01	- Decision and Flow Control - FOR and WHILE Loops - Strings, Lists, and Dictionaries	Python	Think Python – Ch. 5, 8, 10 Byte of Python – Ch. 8, 11
10/08	- FOR and WHILE Loops - Strings, Lists, and Dictionaries	Python	Think Python – Ch. 5, 8, 10 Byte of Python – Ch. 8, 11
10/15	- Reading Excel and CSV files	Python	Online material only
10/22 10/25	- Exam Review - Exam #2		Practical Exam #2
10/29	- Relational Database Fundamentals - SELECT, INSERT, DELETE, UPDATE	Python/SQL	Online material only
11/05 11/02	- SELECT, INSERT, DELETE, UPDATE - Python/SQL Integration <<< DROP DEADLINE >>>	Python/SQL	Online material only
11/12	- SELECT, INSERT, DELETE, UPDATE - Python/SQL Integration	Python/SQL	Online material only
11/19 11/21	-Python/SQL Exam Review - Exam #3	Python/SQL	Practical Exam #3
11/26	- Grade & Course Review		
12/03	- Comprehensive Final Exam Review		
12/10 12/14	<<< FINAL EXAM WEEK >>>		Final Exam

KEY NOTES:

- The instructor reserves the right to make appropriate changes to the schedule as necessary.
- Some classes will be conducted remotely with instructor teaching course material using web-ex during regular class time.
- A fully accredited PhD, Dr. Barulina, will be used to support class instruction when necessary.