

# Tentative Syllabus

## IS-5200 Business Application Architecture & Programming

SYLLABUS AND SCHEDULE | Winter 2021

### Course Description

---

This course introduces the modern concepts of application architecture and programming for business, including data types, expressions, control structures, functional abstraction, object-oriented programming, data management, and application programming interfaces (APIs).

The focus of this course is application programming using a contemporary high-level programming language and software architecture using application integration. This course enhances students' abilities to translate business logic into application logic. Students are expected to gain a better understanding of the development of information systems and the analysis of application requirements for business analytics.

Programming is what makes software, extended to information systems. It is a process of abstraction in which patterns of business processes are implemented in logical sequences. Without understanding the basis of programming, it is hard to progress in the field of business analytics and data science career. Students are learning the fundamentals of application architecture and programming with exercises and assignments. In teaching information systems, we strongly believe in Learning-by-Doing.

### Course Information

---

Course code: IS 5200  
# credits: 3  
Class times: Online  
Location: N/A

### Instructor Information

---

Instructor: James Lee  
Email: leej@seattleu.edu  
Office: PIGT 430  
Office hours: scheduled upon requests

### Core Curriculum Learning Objectives

---

This course helps students

1. Talk: Terminology. You will be able to explain the meaning of terms used to describe IS concepts and techniques.
2. Think: Advanced Information Systems Concepts. You will be able to evaluate the ways in which IS is used in business.
3. Practice: Skill. You will be able to analyze information systems using the conceptual model and the physical model.
4. Build: Systems Development. You will be able to design and implement information systems.
5. Manage: You will be able to identify and suggest appropriate responses to managerial and organizational issues stemming from development, implementation, and use of IS.

## Required readings and materials

---

- Think Python 2e by Allen B. Downey, 2015, Green Tea Press (<https://greenteapress.com/wp/think-python-2e/>),
- Canvas website: <http://seattleu.instructure.com>

## Academic Resources

---

- Library and Learning Commons (<http://www.seattleu.edu/learningcommons/>)  
(This includes: Learning Assistance Programs, Research [Library] Services, Writing Center, Math Lab)
- Academic Integrity Tutorial (found on Canvas and SU Online)

## Academic Policies on Registrar website

---

(<https://www.seattleu.edu/redhawk-axis/academic-policies/>)

- Academic Integrity Policy
- Academic Grading Grievance Policy
- Professional Conduct Policy (only for those professional programs to which it applies)

## Notice for students concerning Disabilities

---

If you have, or think you may have, a disability (including an 'invisible disability' such as a learning disability, a chronic health problem, or a mental health condition) that interferes with your performance as a student in this class, you are encouraged to arrange support services and/or accommodations through Disabilities Services staff located in **Loyola 100, (206) 296-5740**. Disability-based adjustments to course expectations can be arranged only through this process.

## Office of Institutional Equity

---

Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in educational programs or activities that receive Federal financial assistance. This prohibition includes sexual misconduct, which encompasses sexual harassment and sexual violence. Seattle U remains committed to providing a safe and equitable learning, living, and working environment. Seattle U offers emergency, medical, and other support resources, as well as assistance with safety and support measures, to community members who have experienced or been impacted by sexual misconduct.

Seattle U requires all faculty and staff to notify the University's Title IX Coordinator if they become aware of any incident of sexual misconduct experienced by a student.

For more information, please visit <https://www.seattleu.edu/equity/>. If you have any questions or concerns, you may also directly contact the Title IX Coordinator in the Office of Institutional Equity (**email**: [oiie@seattleu.edu](mailto:oiie@seattleu.edu); **phone**: 206.296.2824) University Resources and Policies.

## Grading

Component	Points Each	Total	Percent
Discussion (10)	30	300	30%
Assignments (10)	50	500	50%
Final Project	200	200	20%

**Note.** You are guaranteed to be awarded an A grade if you get over 96.000% overall, at least a B if over 84.000%, and at least a C if over 72.000%.

## Course Schedule

Week	Topic
1	Programming
2	Variables / Expressions
3	Functions
4	Control Structure
5	Iteration
6	Data Structure - Lists
7	Data Structure - Dictionaries
8	Data Structure - Tuples
9	Classes & Objects
10	Application Programming Interface