

# IT 525 Advanced Java Programming

## Course Overview

Spring 2021-2022

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### Course Objective

This course exposes the student to Applied Java features such as Concurrency, XML and JSON operations, Lambda Built in Operations and it is an introduction to multitier web applications.

### Projected Outline

- Java File I/O
- Object Oriented Java Review and More OO
  - Generics and Collections
  - Nested Classes
- Java Database Connectivity (JDBC)
- Programming Desktop Applications with Swing API
  - The Observer Pattern
  - Multi-layered architectures
  - DAO and Service Oriented patterns
- Java 8 Practical Features
  - Lambda Expressions and Interfaces
- Concurrency & Multithreading
- Optional (If time permits)
  - Java and Markup Technologies: XML, XSL & XSD and JSON Basics
  - A brief look at HTML/CSS and JavaScript
  - JavaEE containers and Servlets

### Homeworks

Several homeworks on a programming problem will be issued.

### Grading

Labs	20%
Homeworks	40%
Final Exam	40%

### Reading Materials

- *Java How to Program (Deitel, any edition)*

## Schedule

**Class Hours:**

Saturdays 13:00, Altunizade or Online

Thursdays 19:00 pm, Altunizade or Online

## Contact

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