

## **MISY350 Exam 3 Review**

### **1. Format:**

- Closed-book, closed-notes
- Bring 2B pencils
- 50 multiple-choice/true-false questions (100%)

### **2. Materials to be tested:**

- Lecture slides
- In-class demos and homework assignments

### **3. Major Topics**

#### 1) MySQL

- Relational DBMS
- What is SQL
- SQL statement syntax (select, insert, update, delete)

#### 2) Python

- Multitier application structure
- Comparison of client-side and server-side scripting
- Pros and cons of Python
- Python language essentials (variables, global variables, data types, constants, lambda function, string operations, operators, control structures, lists, dictionaries, and sets)

#### 3) Python Flask

- How to adopt a Bootstrap template into the Python Flask app template (excluding package installation steps)
  - Frontend and backend development
- Object-Relational Mapping
- SQLAlchemy database, session, query objects and methods
- Making changes to databases in SQLAlchemy

#### 4) Python State Management

- Needs for saving the state
- Solutions to the data persistence problem
- Differences between sessions and cookies

#### 5) Python Flask Form Input Validation and Processing

- Python Flask form setup
- Sending data between an HTML form and app/views.py
- Jinja syntax used in HTML templates
- Flashed messages