

Schedule

A week-by-week breakdown of the material.

Week 1 (09/05-09/09)

- Day 1
 - Introduction, case studies¹
- Day 2
 - Data Formats²
- Day 3
 - Reading JSON from Python³
 - Assignment 1: Working with JSON data⁴

Week 2 (09/12-09/16)

- Day 1
 - List Comprehensions⁵
 - Introduction to Web APIs and Web Services⁶
- Day 2
 - RESTful design⁷
- Day 3
 - RESTful design, case study⁸
 - Assignment 2: Working more with Twitter API⁹

Week 3 (09/19-09/23)

- Day 1
 - Introduction to databases¹⁰

¹[notes/intro.html](#)

²[notes/data_formats.html](#)

³[notes/json_python.html](#)

⁴[assignments/1.html](#)

⁵[notes/list_comprehensions.html](#)

⁶[notes/web_apis.html](#)

⁷[notes/rest.html](#)

⁸[notes/rest_case_study.html](#)

⁹[assignments/2.html](#)

¹⁰[notes/databases_intro.html](#)

- Relational Databases¹¹
- Day 2
 - Introduction to MySQL¹²
- Day 3
 - Joins, functions, updates and deletes¹³
 - Assignment 3: Working with MySQL database tables¹⁴

Week 4 (09/26-09/30)

- Day 1
 - Accessing SQL from other languages¹⁵
- Day 2
 - Accessing SQL from other languages (cont)¹⁶
- Day 3
 - Web Frameworks, and Flask¹⁷
 - Assignment 4: Tweets via SQL queries and SQLAlchemy¹⁸

Week 5 (10/03-10/07)

- Day 1
 - Indexes and Views
 - Schema descriptions (Entity-Relation model)
- Day 2
 - ORM-based SQL access
- Day 3
 - Assignment 5: More advanced work with SQL databases

¹¹[notes/databases_relational.html](#)

¹²[notes/databases_mysql.html](#)

¹³[notes/databases_mysql.html](#)

¹⁴[assignments/3.html](#)

¹⁵[notes/databases_sqlalchemy.html](#)

¹⁶[notes/databases_sqlalchemy.html](#)

¹⁷[notes/databases_web_frameworks.html](#)

¹⁸[assignments/4.html](#)

Week 6 (10/10-10/14)

- Day 1
 - Introduction to NoSQL databases
- Day 2
 - More on NoSQL databases (Mongo?)
- Day 3
 - Midterm

Week 7 (10/17-10/21)

- Day 1
 - Fall Break
- Day 2
 - Introduction to Hadoop
- Day 3
 - TBA

Week 8 (10/24-10/28)

- Day 1
 - Authorization and OAuth2
 - TBA
- Day 2
 - TBA
- Day 3
 - TBA

Week 9 (10/31-11/04)

- Day 1
 - TBA
- Day 2
 - TBA
- Day 3
 - TBA

Week 10 (11/07-11/11)

- Day 1
 - TBA
- Day 2
 - TBA
- Day 3
 - TBA

Week 11 (11/14-11/18)

- Day 1
 - TBA
- Day 2
 - TBA
- Day 3
 - TBA

Week 12 (11/21-11/25)

- Day 1
 - TBA
- Day 2
 - Thanksgiving
- Day 3
 - Thanksgiving

Week 13 (11/28-12/02)

- Day 1
 - TBA
- Day 2
 - TBA
- Day 3
 - TBA

Week 14 (12/05-12/09)

- Day 1
 - TBA
- Day 2
 - TBA
- Day 3
 - Project presentations