

# 华夏中文学校 Python-II Syllabus

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## 1. Sqlite

- Create
- Retrieve
- Update
- Delete
- Primary and Foreign keys
- Where clause: Find related data

## 2. Enum

- Simple enum
- Enum key-values pair
- Enum comparison
- define enum function
- constructor (**new** vs. **init**)
- Card game enum
- @property function

## 3. Functional Programming

- pass function to function
- return function
- decorator function

## 4. Either

- Reactive X Concept
- Function chain by Either

## 5. Monad

- Functor
- Applicative
- Monad
- Function Biding

## 6. Blackjack Card Game

- Start from scratch
- Unit test for each class
- Using decision table to make decision

## 7. Design Pattern

- Singleton
- Observer

- Factory
- Command

## 8. Understand Dunder Functions and variables

- **name**
- **doc**
- **init()**
- **repr()**
- **str()**
- **gt()**
- **eq()**
- **ge()**
- **len()**
- **lt()**
- **le()**

## 9. Logging

- log information to file
- define log format

## 10. Unit Test

- Configure VS Code Unit Test
- Write Unit Test for functions

## 11. Python Documentation

- Build Python document for class and function
- refer to document