

# Course Design & Activities

- **Module 1: Foundational Knowledge**
  - Weekly **lecture videos**: submit a **weekly “proof of learning”**
  - Regular **quizzes** (automatically graded) + **assignments** (peer + self grading + optional TA grading)
  - Late midterm **exam** (covering questions in quizzes and assignments)
- **Module 2: Experimental Skills**
  - Experimental Lab (experimentation with data sets & leaderboard-based competition)
- **Module 3: Frontier Topics**
  - Students read and present book chapters/papers for collaborative learning (online conference on Zoom with parallel sessions for question answering and discussion)
- **Module 4: Multi-Track Course Project (Open Exploration & Collaboration)**
  - **Research Track**: Discovery of new knowledge → submission/publication
  - **System Track**: Develop innovative systems → open source software