Schedule

A week-by-week breakdown of the material.

Week 1 (01/11-01/15)

- Day 1 OCAML setup¹
- **Day 2** OCAML basics² Evaluation model, basic types, bindings
- Day 3 Functions³
- **Day 4** Tuples, practice⁴

Assignment 1⁵ due by class time, Friday, January 22nd.

Week 2 (01/18-01/22)

- **Day 1** Lists and Option Types⁶
- **Day 2** Pattern-matching⁷
- Day 3 Recursion⁸
- **Day 4** State recursion⁹

Assignment 2^{10} due by class time, Wed, January 27th.

Week 3 (01/25-01/29)

- Day 1 Tail Calls¹¹
- **Day 2** Style reviews.
- **Day 3** Recursion practice.
- Day 4 Assignment 2 style reviews. Recursion practice problems¹²

¹notes/setup.html

²notes/ocaml basics.html

³notes/ocaml functions.html

⁴notes/ocaml functions.html

⁵assignments/hw1.html

⁶notes/lists_options.html

⁷notes/pattern_matching.html

⁸notes/recursion.html

⁹notes/recursion_state.html

¹⁰assignments/hw2.html

¹¹notes/tail calls.html

¹²notes/recursion_state.html

Week 4 (02/01-02/05)

Day 1 Type aliases and Type variants¹³
Assignment 3¹⁴ due by class time, Monday, February 8th.

Day 2 Polymorphic Types¹⁵

Day 3 Type inference 16

Day 4 Anonymous Functions, Functions as values¹⁷ Assignment 4¹⁸ due Thursday, February 11th.

Week 5 (02/08-02/12)

Day 1 Currying¹⁹

Day 2 Exceptions and exception handling²⁰
Assignment 5²¹ due Wednesday, February 17th.

Day 3 Sick day

Day 4 Sick day

Week 6 (02/15-02/19)

Day 1 Higher order functions²²
Assignment 6²³ due Monday, February 22nd.

Day 2 List functions²⁴

Day 3 Introduction to Modules²⁵
Assignment 7²⁶ due Friday, February 26th.

Day 4 References and mutation²⁷

13 notes/type_variants.html
14 assignments/hw3.html
15 notes/types_polymorphic.html
16 notes/type_inference.html
17 notes/functions_anonymous.html
18 assignments/hw4.html
19 notes/currying.html
20 notes/exceptions.html
21 assignments/hw5.html
22 notes/functions_higher_order.html
23 assignments/hw6.html
24 notes/functions_list.html

²⁵notes/modules.html

²⁶assignments/hw7.html ²⁷notes/references.html

Week 7 (02/22-02/26)

- Day 1 Sick Day
- **Day 2** Delayed Evaluation²⁸
- **Day 3** Records and Objects²⁹
- **Day 4** Building an Interpreter³⁰

Assignment 8³¹ due Monday, March 14th.

Week 8 (02/29-03/04)

BREAK

Week 9 (03/07-03/11)

- **Day 1** Introduction to Racket³²
- Day 2 MIDTERM (study guide³³)
- **Day 3** Introduction to Racket (cont)³⁴
- **Day 4** Bindings and Mutation in Racket³⁵

Week 10 (03/14-03/18)

Day 1 Macros³⁶

Dynamic Datatype-Programming via pairs³⁷ Assignment 9³⁸ due Monday, March 21st.

- Day 2 Guest lecture
- **Day 3** Dynamic Datatype-Programming via structs³⁹

Day 4 Mutation in the Interpreter: The need for a store⁴⁰

²⁸notes/delayed_eval.html

²⁹notes/records_objects.html

³⁰notes/interpreter.html

³¹assignments/hw8.html

³²notes/racket_intro.html

³³notes/midterm_study_guide.html

³⁴notes/racket_intro.html

³⁵notes/racket_bindings_mutation.html

³⁶notes/racket_macros.html

³⁷notes/racket_datatypes.html

³⁸assignments/hw9.html

³⁹notes/racket datatypes.html

⁴⁰notes/interp mutation.html

Week 11 (03/21-03/25)

- **Day 1** Mutation in the Interpreter: The need for a store⁴¹ Assignment 10⁴² due Monday, March 28th.
- **Day 2** Static Type-Checking vs Dynamic checking⁴³
- **Day 3** Interpreting objects and classes
- **Day 4** Type-checking in the interpreter

Week 12 (03/28-04/01)

- Day 1 Continuations and their uses
- Day 2 Continuation-passing style
- Day 3 TBA
- Day 4 TBA

Week 13 (04/04-04/08)

- Day 1 TBA
- Day 2 TBA
- Day 3 TBA
- Day 4 TBA

Week 14 (04/11-04/15)

- Day 1 TBA
- Day 2 TBA
- Day 3 TBA
- Day 4 TBA

⁴¹notes/interp_mutation.html

⁴²assignments/hw10.html

⁴³notes/static_vs_dynamic.html