# Agenda for CSCE 590 class meeting of 2020-11-05 ("Asynchronous Online Day," Class 23: 1 of Week 12; Online) 

## 1. Remember to record the session!

| WEEK | TOPIC | SOURCE |
| :---: | :---: | :---: |
| $1(8 / 20,8 / 25)$ | Introduction and the GHC Compiler and Haskell Platform | Chs. 1 \& $2[\mathrm{H}]$ |
| $2(8 / 27,9 / 1)$ | Types and Classes | Ch. 3 [H] |
| $3(9 / 3,9 / 8)$ | Defining Functions and List Comprehensions | Chs. 4 \& $5[\mathrm{H}]$ |
| $4(9 / 10,9 / 15)$ | Recursive Functions | Ch. $6[\mathrm{H}]$ |
| 5 (9/17, 9/22) | Higher-Order Functions | [B] \& Ch. 7 [H] |
| 6 (9/23, 9/29) | Declaring Types and Classes and the Countdown Problem | Chs. 8 and $9[\mathrm{H}]$ |
| 7 (10/01, 10/6) | Review and the Countdown Problem (was: Review and Midterm) | Chs. 8 and 9 [H] |
| $8(10 / 08,10 / 13)$ | Midterm and a Simple Sudoku Solver | Ch. 5 [TFWH] |
| $9(10 / 15,10 / 20)$ | The Countdown Problem; Denotational Semantics | Ch. 9 [H], Notes |
| 10 (10.22, 10/27) | Interactive Programming and Two-person Games | Chs. 10 \& 11 [H] |
| 11(10.29, 11/3) | Two-person Games; Functors, Applicatives, and Monads | Chs 11 \& 12 [H] |
| 12(11/5, 11/10) | Functors, Applicatives, and Monads; Monadic Parsing | Chs. 12 \& 13 [H] |
| 13 | Foldables and Lazy Evaluation | Chs. 14 \& 15 [H] |
| 14 | Reasoning about Programs | Chs. 16 \& 17 [H] |
| (15 | Functional (Persistent) Data Structures | Notes) |
|  | Final Exam: December 10, 9 a.m. |  |

2. Check email to see whether students are emailing reports of trouble.
3. Ask student to use chat for questions and mute audio and video on their side, to limit clutter and bandwidth.
4. Virtual Office Hours. I expect to have virtual office hours on Blackboard Collaborate Ultra from 1500-1800 on Mondays. Office hours are canceled until further notice. Please email me for meetings.
5. HW11: Exercises 1-3 Ch. 11 [H], due on Thursday, November 5. (This is a change.)
6. Ch. $12[\mathrm{H}]$ : Monads and More: Functors and Applicatives.
7. Video by Graham Hutton, with an introduction to Monads.
8. Formal semantics: Axiomatic Semantics. A presentation based on Ch. 9 ("An Introduction to Formal Semantics") of: Carlo Ghezzi and Mehdi Jazayeri. Programming Language Concepts, $2^{\text {nd }}$ ed. Wiley, 1987.
9. Ask students to have the required textbook $[\mathrm{H}]$ with them during class.
10. No attendance was taken for the class of Tuesday, November 3 (Election Day). The students were asked to review the lecture on the Recordings section of Blackboard Collaborate Ultra before the Thursday (November 5) lecture.
11. Make sure that the students are fine and wait for questions before ending the session.
