### Schedule

A week-by-week breakdown of the material.

#### Week 1 (09/04-09/09)

**Mon** Introduction to Haskell and Fuctional Programming<sup>1</sup> (1.1-1.5)

**Wed** Working with the GHC compiler and interpreter. Lists.<sup>2</sup> (2.1-2.5)

Fri Standard Haskell values and types.<sup>3</sup> (3.1-3.5)

#### Week 2 (09/11-09/15)

**Mon** More advanced typing: Curried Functions. Polymorphism, Type classes.<sup>4</sup> (3.6-3.9)

**Wed** More advanced typing: Curried Functions. Polymorphism, Type classes. (cont)<sup>5</sup> (3.6-3.9)

**Fri** Conditionals. Guarded Expressions.<sup>6</sup> (4.1-4.3)
Assignment 1. Due 09/22<sup>7</sup>

#### Week 3 (09/18-09/22)

**Mon** Pattern Matching.<sup>8</sup> (4.4)

**Wed** More practice with Pattern Matching.<sup>9</sup>

Fri Version Control<sup>10</sup>

Assignment 2. Due  $09/29^{11}$ 

<sup>&</sup>lt;sup>1</sup>notes/intro.html

<sup>&</sup>lt;sup>2</sup>notes/lists.html

<sup>&</sup>lt;sup>3</sup>notes/standard.html

<sup>&</sup>lt;sup>4</sup>notes/types advanced.html

<sup>&</sup>lt;sup>5</sup>notes/types\_advanced.html

<sup>&</sup>lt;sup>6</sup>notes/functions\_conditionals.html

<sup>&</sup>lt;sup>7</sup>assignments/assignment1.html

<sup>&</sup>lt;sup>8</sup>notes/pattern\_matching.html

<sup>&</sup>lt;sup>9</sup>notes/more\_pattern\_matching.html

<sup>&</sup>lt;sup>10</sup>notes/version control.html

<sup>&</sup>lt;sup>11</sup>assignments/assignment2.html

#### Week 4 (09/25-09/29)

**Mon** Recursion<sup>12</sup> (6.1-6.6)

**Wed** Recursion (cont) $^{13}$  (6.1-6.6)

**Fri** Anonymous Functions. Sections. <sup>14</sup> (4.5-4.6) Assignment 3. Due 10/13<sup>15</sup>

#### Week 5 (10/02-10/06)

**Mon** Type Aliases and Custom Types. 16 (8.1-8.3)

**Wed** The Maybe (Option) Type. 17

**Fri** List Comprehensions. 18 (5.1-5.4)

#### Week 6 (10/09-10/13)

**Mon** Functions as Values: Difference Lists, Composition<sup>19</sup> (7.5)

**Wed** Functions as Values: Difference Lists, Composition (cont)<sup>20</sup> (7.5)

**Fri** MIDTERM (study guide<sup>21</sup>)

#### Week 7 (10/16-10/20)

**Mon** Overview of Software Development Practies<sup>22</sup>

Testing<sup>23</sup>

**Wed** Higher-order functions. Processing Lists. (7.1-7.2)

Folding. (7.3-7.4)

Fri Practice with Higher-order functions.

<sup>&</sup>lt;sup>12</sup>notes/recursion.html

<sup>&</sup>lt;sup>13</sup>notes/recursion.html

<sup>&</sup>lt;sup>14</sup>notes/anonymous functions.html

<sup>&</sup>lt;sup>15</sup>assignments/assignment3.html

<sup>&</sup>lt;sup>16</sup>notes/types\_custom.html

<sup>&</sup>lt;sup>17</sup>notes/types\_custom.html

<sup>&</sup>lt;sup>18</sup>notes/list\_comprehensions.html

<sup>&</sup>lt;sup>19</sup>notes/difference lists.html

<sup>&</sup>lt;sup>20</sup>notes/difference lists.html

<sup>&</sup>lt;sup>21</sup>notes/midterm\_study\_guide.html

<sup>&</sup>lt;sup>22</sup>notes/dev\_overview.html

<sup>&</sup>lt;sup>23</sup>notes/testing.html

#### Week 8 (10/23-10/27)

**Mon** Recursive Types. (8.4)

**Wed** Interactive Programming: Modeling state without mutation (10.?)

**Fri** Practice with Interactive Programming (10.?)

#### Week 9 (10/30-11/03)

**Mon** Type-directed programming. Modules.

Wed Information hiding and abstraction with modules.

Fri Custom type classes. (8.5)

#### Week 10 (11/06-11/10)

Mon TBD

Wed TBD

Fri TBD

#### Week 11 (11/13-11/17)

Mon TBD

Wed TBD

Fri TBD

## Week 12 (11/20-11/24)

Mon TBD

Wed TBD

Fri TBD

## Week 13 (11/27-12/01)

Mon TBD

Wed TBD

Fri TBD

# Week 14 (12/04-12/08)

Mon TBD

 $\boldsymbol{Wed} \ \mathrm{TBD}$ 

Fri TBD