### 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** Anonymous Functions. Sections. 12 (4.5-4.6)

Type Aliases and Custom Types. Option Type. 13 (8.1-8.3)

**Wed** List comprehensions. (5.1-5.3)

More list comprehensions. (5.4-5.5)

**Fri** Numerical recursion. List recursion. (6.1-6.2)

Multiple argument recursion. Mutual recursion. (6.3-6.5)

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

**Mon** Recursion practice. (6.6)

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

**Fri** Folding. (7.3-7.4)

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

**Mon** Function composition. Examples. (7.5, 7.7)

**Wed** Practice with Higher-order functions.

Fri Recursive Types. (8.4)

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

Mon Type-directed programming. Modules.

**Wed** Information hiding and abstraction with modules.

Fri Custom type classes. (8.5)

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

#### **BREAK**

<sup>&</sup>lt;sup>12</sup>notes/anonymous\_functions.html

<sup>&</sup>lt;sup>13</sup>notes/types custom.html

# Week 9 (10/30-11/03) Mon TBD Wed TBD Fri TBD 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

Wed TBD

Fri TBD