## CS 3520: Programming Languages

<table>
<thead>
<tr>
<th>Fall 2020</th>
<th>Language</th>
<th>Assignment (due at end of week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 24–28</td>
<td>Forth</td>
<td></td>
</tr>
<tr>
<td>Aug 31–Sep 4</td>
<td>Forth</td>
<td></td>
</tr>
<tr>
<td>Sep 7–11 (Labor Day)</td>
<td>Standard ML</td>
<td></td>
</tr>
<tr>
<td>Sep 14–18</td>
<td>Standard ML</td>
<td></td>
</tr>
<tr>
<td>Sep 21–25</td>
<td>Standard ML</td>
<td></td>
</tr>
<tr>
<td>Sep 28–Oct 2</td>
<td>Standard ML</td>
<td></td>
</tr>
<tr>
<td>Oct 5–9</td>
<td>Simple interp</td>
<td></td>
</tr>
<tr>
<td>Oct 12–16 (Fall break)</td>
<td>Lisp interp</td>
<td>Simple interp</td>
</tr>
<tr>
<td>Oct 19–23</td>
<td>Lisp interp</td>
<td></td>
</tr>
<tr>
<td>Oct 26–30</td>
<td>Scheme interp</td>
<td></td>
</tr>
<tr>
<td>Nov 2–6</td>
<td>Prolog</td>
<td></td>
</tr>
<tr>
<td>Nov 9–13</td>
<td>Prolog</td>
<td></td>
</tr>
<tr>
<td>Nov 16–20</td>
<td>Prolog</td>
<td></td>
</tr>
<tr>
<td>Nov 23–27 (Thanksgiving)</td>
<td>TBD</td>
<td>Prolog</td>
</tr>
<tr>
<td>Nov 30–Dec 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Changes to the schedule will be announced in class.

---

### Resources

- [Syllabus](#)
- [Examples from class](#)
- Setting up [ssh](#) to connect to [cs3520.cs.dixie.edu](http://cs3520.cs.dixie.edu) without typing a password:
  - [Written instructions](#)
  - [Screencast demo](#) (note, the written instructions are slightly simpler—open that page and follow along while you watch the screencast).

---

### Languages

- **Forth**
  - [Learn X in Y Minutes: Forth](#)
  - [Easy Forth](#)
  - [Starting Forth](#)
  - [jonesforth (assembly part)](#)
  - [jonesforth (forth part)](#)
- **Standard ML slides**
- **Prolog slides part 1** (first look, rules, operators, lists)
- **Prolog slides part 2** (second look, unification, execution model, adventure game)
- **Prolog slides part 3** (cost models)
- **Prolog slides part 4** (third look, numeric computation, knapsack, 8-queens)
- **A half-hour to learn Rust**
- **Rust via its Core Values**
- **Language shootout size vs speed**

---

### Assignments

See the Canvas listings for assignments and due dates. All homework is submitted using CodeGrinder unless otherwise noted.

---

### Final project languages

In place of a final exam, each student will learn one additional language, write some code in that language, and present it to the rest of the class. Here are a few potential choices:
• Factor (Jacob, Dillon)
• Smalltalk (Logan, Hunter, Micah)
• Haskell (Kendall, Treydin, Soren)
• OCaml or F# (Will, Ammon)
• Clojure (Wyatt, Jessica)
• Common Lisp (Canon)
• Perl (Andrew, Kendra, Timothy)
• Erlang or Elixir (Diego, Jorge, Rory)
• J (Joshua)
• Tcl (Josh, Edwin)
• Silq (Jaedan, Adam)