# 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>
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<tr>
<td>Aug 31–Sep 4</td>
<td>Forth</td>
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<tr>
<td>Sep 7–11 (Labor Day)</td>
<td>Standard ML</td>
<td>Standard ML</td>
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<td>Sep 14–18</td>
<td>Standard ML</td>
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<td>Sep 21–25</td>
<td>Standard ML</td>
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<tr>
<td>Sep 28–Oct 2</td>
<td>Standard ML</td>
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<tr>
<td>Oct 5–9</td>
<td>Simple interp</td>
<td>Standard ML</td>
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<tr>
<td>Oct 12–16 (Fall break)</td>
<td>Lisp interp</td>
<td>Simple interp</td>
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<tr>
<td>Oct 19–23</td>
<td>Scheme interp</td>
<td>Lisp interp</td>
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<tr>
<td>Oct 26–30</td>
<td>Prolog</td>
<td>Scheme interp</td>
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<td>Nov 2–6</td>
<td>Prolog</td>
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<td>Nov 9–13</td>
<td>Prolog</td>
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<td>Nov 16–20</td>
<td>Prolog</td>
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<tr>
<td>Nov 23–27 (Thanksgiving)</td>
<td>TBD</td>
<td>Prolog</td>
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<tr>
<td>Nov 30–Dec 4</td>
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Changes to the schedule will be announced in class.

## Resources

- [Syllabus](#)
- [Examples from class](#)
- Setting up ssh to connect to 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)
- Standard ML slides
  - [Lua 5.1 Reference Manual](#)
  - [Learn X in Y minutes: Lua](#)
  - [Lua: Passing a Language through the Eye of a Needle](#)
  - [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
• Smalltalk
• Haskell
• OCaml or F#
• Clojure
• Common Lisp
• Rust
• Perl
• Erlang or Elixir
• J
• Tcl