\textbf{\LaTeX{} Seminar: Tables}

\LaTeX{} has amazing table producing capabilities. Tables are produced with the \texttt{tabular} environment. The syntax is

\begin{verbatim}
\begin{tabular}{pos}{cols},
\end{verbatim}

where \texttt{pos} has one of the values \texttt{t}, \texttt{b} or is left empty. These determine the overall alignment of the table relative to the surrounding text, and should be experimented with. The column formatting argument \texttt{cols} is a little complex. There must be an entry for every column, consisting of one of \texttt{c}, \texttt{r}, \texttt{l} which indicate the alignment (center, right, or left) of the data in the column, as well as certain optional formatting commands, the most common of which are the symbols \texttt{|} and \texttt{||} which produce a vertical line and a double vertical line wherever they appear. Rows are then entered using the alignment tabs \texttt{&} to separate columns and line breaks \texttt{\\\\\textbackslash} to indicate the end of a row. Unlike columns, the number of rows does not have to be pre-specified. Observe that table data can consist of text or math or both.

Take a look at the code for the following tables in the file \texttt{tables.tex} and edit as you wish. There are some commands to keep in mind:

0.1. \texttt{multicolumn}. The command \texttt{\multicolumn{num}{cols}{input}} joins together \texttt{num} columns, aligning the input according to the parameters \texttt{cols}, which can be any one of \texttt{r}, \texttt{l}, \texttt{c} together with \texttt{|}, \texttt{||} as above.

0.2. \texttt{hline}, \texttt{cline}. The command \texttt{\hline} produces a horizontal line extending across the entire table. It can only be issued after a line break \texttt{\\\\\textbackslash}. The command \texttt{\cline{n-m}} draws a horizontal line from the left side of column \texttt{n} to the right side of column \texttt{m}. It may only be issued after a line break, and several can be issued at once.

0.3. \textbf{Table Parameters}. There are several parameters that can be altered. The most useful of these is \texttt{\arraystretch}, which may be altered by issuing the command (either locally or globally) \texttt{\renewcommand{\arraystretch}{factor}}, where \texttt{factor} indicates how much to stretch the spacing in the table. It's standard value is 1.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline
\textbf{TIME} & 9-10 & 10-11 & 11-12 & 12-1 & 1-2 & 2-3 & 3-4 \\
\hline
Sun. & & & & & & & \\
\hline
Mon. & Analysis & Topology & Alg. Geometry & Lunch & Algebra & & \\
\hline
Tu. & & & & grading! & Lunch & CFT. & \\
\hline
Wed. & Analysis & Topology & Alg. Geometry & Lunch & Algebra & & \\
\hline
Thur. & & & & grading! & Lunch & CFT. & \\
\hline
Fri. & Analysis & Topology & Alg. Geometry & Lunch & Algebra & & \\
\hline
Sat. & & & & & & party!! & \\
\hline
\end{tabular}
\end{table}
<table>
<thead>
<tr>
<th>Day</th>
<th>9:10–10:00 am</th>
<th>10:10–11:00 am</th>
<th>11:10–12:00 pm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subj.</td>
<td>Teacher</td>
<td>Subj.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Room</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3088 EH.</td>
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<tr>
<td></td>
<td></td>
<td>3088 EH.</td>
<td></td>
</tr>
</tbody>
</table>

I was too lazy to format Tuesday and Thursday, so it’s left as an exercise.