DSP Lab Manual

Sophocles J. Orfanidis

Spring 2014
## Lab Schedule – Spring 2014

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<tr>
<th>Week</th>
<th>Group</th>
<th>Labs</th>
</tr>
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<tr>
<td>2/03</td>
<td>A</td>
<td>Lab1 – CCS introduction, aliasing, quantization, data transfers, guitar distortion</td>
</tr>
<tr>
<td>2/10</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>2/17</td>
<td>A</td>
<td>Lab2 – CCS, sinusoids, wavetables, AM/FM, ring modulators, tremolo</td>
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<tr>
<td>2/24</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>3/03</td>
<td>A</td>
<td>Lab3 – Delays, circular buffers, FIR filters, voice scrambler</td>
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<tr>
<td>3/10</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>3/17</td>
<td>A &amp; B</td>
<td></td>
</tr>
<tr>
<td>3/24</td>
<td>A &amp; B</td>
<td>Lab4 – Sampling, aliasing, FIR filtering (software lab)</td>
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<tr>
<td>4/07</td>
<td>A</td>
<td>Lab5 – Digital audio effects, reverb, multi-delay, guitar strings, flangers, vibrato</td>
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<tr>
<td>4/14</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>4/21</td>
<td>A &amp; B</td>
<td>Lab6 - IIR filtering experiments (software lab)</td>
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**Notes**

1. Labs meet in room ELE-209.

2. The lab sessions have a duration of two periods. Attendance in all labs is required (it is not possible to get an “A” in the lab course if one of these sessions is missed.) Due to the limited number of workstations, missed hardware labs cannot be made up.

3. Each lab section has been split into two groups, A & B, that meet on alternate weeks as shown on the above schedule. The groups are as follows, divided according to student last names (please note that these may change until registration is closed):

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<th>Group B</th>
</tr>
</thead>
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<tr>
<td>Section–1, Th 10:20 AM - 1:20 PM</td>
<td>Agarwal – Loh</td>
<td>MacPhee – Zieder</td>
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<tr>
<td>Section–2, W 3:20 PM - 6:20 PM</td>
<td>Ali – Patel</td>
<td>Peirce – Young</td>
</tr>
<tr>
<td>Section–3, F 8:40 AM – 11:40 AM</td>
<td>Beard - Wei</td>
<td></td>
</tr>
<tr>
<td>TA</td>
<td>S. Sun / T. Wu</td>
<td>T. Wu / S. Sun</td>
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