## Schedule and outline

### Assignment due dates

Ongoing assignment - Raid

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Assignment (due Sun 11:55pm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raid/Docker</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TCP/HTTP/Apache Intro</td>
<td>Docker</td>
</tr>
<tr>
<td>3</td>
<td>Benchmarking/Name-Based virtual</td>
<td>Web Stats</td>
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<tr>
<td>4</td>
<td>IP-Based virtual hosts/Mass hosting/configuration options</td>
<td>Apache and PHP</td>
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<tr>
<td>5</td>
<td>Quotas/.htaccess /Authentication</td>
<td>Virtual Host Have nameservers ready</td>
</tr>
<tr>
<td>6</td>
<td>Mod-rewrite</td>
<td>Test 1?</td>
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<tr>
<td>7</td>
<td>Web-crawling/IIS-1</td>
<td>regular expressions</td>
</tr>
<tr>
<td>8</td>
<td>IIS-2</td>
<td>mod_rewrite</td>
</tr>
<tr>
<td>9</td>
<td>Other web/nginx/compression</td>
<td>IIS Business config</td>
</tr>
<tr>
<td>10</td>
<td>SSL</td>
<td>SSL</td>
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<tr>
<td>11</td>
<td>Squid/Dansguardian/mod-proxy and load balancing,F5</td>
<td>Test 2 is before we start talking about proxies</td>
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<tr>
<td>12</td>
<td>MySQL-replication,backup</td>
<td>Filtering</td>
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<tr>
<td>13</td>
<td>MySQL - cluster</td>
<td>MySQL</td>
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<tr>
<td>14</td>
<td>icecast/streaming media/</td>
<td>Thanksgiving</td>
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<tr>
<td>15</td>
<td>Web storage/ amazon buckets, paas</td>
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<tr>
<td>16</td>
<td>Review</td>
<td>Test 3, Final Project</td>
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</tbody>
</table>

Final project presentations will be given on during the last week of class.

### Weekly Readings

A reading designated as reference only ® is not required to be read but can be a valuable resource for troubleshooting or review

#### Week 1

- **RAID**
- **Docker** - ®
- **Docker how to** (make sure you know how to do all that is explained along the left menu)
- **Definition of Docker terms**
- **Dockerizing user guide** - (Start here)

#### Week 2

- **HTTP RFC** - reference only ®
- **TCP Link** - ®
- **HTTP Review**
- **HTTP Status codes** - Know the general areas.
- **HTTP Specs** - ®
- **Apache platform** - all 8 pages
- **Apache core** - ®

#### Week 3

- **Threads vs. Processes** - to help understand Apache prefork vs. MPM
- **Simple guide to web server analysis** - webalizer
- **Name based host**
- **IP based hosts**
Week 4

- Virtual Host Matching
- Virtual Host Sections

Week 5

- Quota how-to
- Authentication (11 pages)
- Apache Auth Documentation - ®

Week 6

- Mod rewrite-1
- Mod alias
- My rewrite examples
- Regular Expression Tutorial
- Regular Expression Builder

Week 7

- Wikipedia overview of web-crawling
- Googlebot
- Robots.txt
- Robotstxt-Internet draft - ®

Week 8

- Mod deflate
- Other tutorial on compression *
- Content negotiation

Week 9

- SSL-1
- SSL-2
- Easy ssl how-to

Week 10

- Mod proxy
- Mod Proxy Balancer
- Squid ACL Config - ®
- Squid how-to

Week 11

Week 12

Week 13

- MySQL-Backup
- MySQL-Availability and Scalability
- DRBD configuration site - ®
- My DRBD how-to

Week 14

- MySQL-Replication
- MySQL-Cluster
- Reset Root MySQL password*

Week 15
Week 16

* Final Review

*provided as reference material if needed