## Schedule and outline

### Assignment due dates

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

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

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### 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**

- HTTP RFC - reference only ®
- TCP Link - ®
- HTTP Review
- HTTP Status codes - Know the general areas.
- HTTP Specs - ®
- Apache platform - all 8 pages
- Apache core - ®
- Slides 1

**Week 2**

- Threads vs. Processes - to help understand Apache prefork vs. MPM
- Simple guide to web server analysis - webalizer
- Name based host
- IP based hosts
- Network config on xenial

**Week 3**

- Virtual Host Matching
- Virtual Host Sections
Week 4

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

Week 5

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

Week 6

- Wikipedia overview of web-crawling
- Googlebot
- Robotstxt
- Robotstxt-Internet draft

Week 7

- Mod deflate
- Other tutorial on compression
- Content negotiation

Week 8

- NGINX
- nginx ssl demo
- SSL-1
- SSL-2
- Easy ssl how-to
- Slides 10

Week 9

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

Week 10

Week 11

Week 12

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

Week 13

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

Week 14
Week 15

- Final Review

*provided as reference material if needed