CS 325 — Analysis of Algorithms
Winter 2018

Professor: Paul Cull       Class Time: MWF 10:00–10:50
Office: Kelley 3075       Classroom: OWEN 103
Office Hours: TBA         e-mail: pc@cs.orst.edu

Outline

<table>
<thead>
<tr>
<th>Dates</th>
<th>Topics</th>
<th>Notes</th>
<th>Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 8, 10</td>
<td>Introduction</td>
<td>1, 3</td>
<td>0,1</td>
</tr>
<tr>
<td>Jan 12, 17, 19, 22</td>
<td>Towers of Hanoi</td>
<td>2</td>
<td>0,1</td>
</tr>
<tr>
<td>Jan 15</td>
<td>Martin Luther King, Jr. (no class)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 24, 26, 29, 31</td>
<td>Difference Equations</td>
<td>9, 10</td>
<td>0,1</td>
</tr>
<tr>
<td>Feb 5</td>
<td>TEST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb 2, 7, 9, 12</td>
<td>Divide and Conquer</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Feb 14, 16, 19, 21</td>
<td>Exhaustive Search</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Feb 23, 26, 28, Mar 2, 5</td>
<td>Hard Problems</td>
<td>8</td>
<td>8,9,5</td>
</tr>
<tr>
<td>Mar 7</td>
<td>TEST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 9, 12, 14</td>
<td>Average Case and Lower Bounds</td>
<td>5, 6</td>
<td></td>
</tr>
<tr>
<td>Mar 16</td>
<td>Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 20</td>
<td>FINAL – TBA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Texts

Notes: Cull, CS 325 Notes, available on web page
Book: Dasgupta, Papadimitriou, Vazirani Algorithms

References

Harel Algorithmics, The Spirit of Computing (recommended reading)
Kleinberg and Tardos Algorithmic Design
Cormen and others Algorithms
Cull, Flahive, and Robson Difference Equations

Teaching Assistants

<table>
<thead>
<tr>
<th>Email</th>
<th>Office Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evgenia Chunikhina</td>
<td>TBA</td>
</tr>
<tr>
<td>Rahul Sheil Borkar</td>
<td>TBA</td>
</tr>
<tr>
<td>Uday Ramesh Phalak</td>
<td>TBA</td>
</tr>
<tr>
<td>Jian Tang</td>
<td>TBA</td>
</tr>
</tbody>
</table>