Computer Science

**CS 591  Advanced Seminar**  credit: 0 TO 4 hours.
Seminar on topics of current interest as announced in the Class Schedule. Approved for S/U grading only. May be repeated in the same or separate terms if topics vary. Prerequisite: As specified for each topic offering, see Class Schedule or departmental course description.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>35941</td>
<td>Lecture-Discussion</td>
<td>ACT</td>
<td>ARRANGED -</td>
<td></td>
<td>ARR - Siebel Center for Comp Sci</td>
<td>Adve, V Garzaran, M Padua, D</td>
</tr>
<tr>
<td>43832</td>
<td>Lecture-Discussion</td>
<td>BIO</td>
<td>10:00 AM - 10:50 AM</td>
<td>M</td>
<td>-</td>
<td>Peng, J Sinha, S Warnow, T</td>
</tr>
<tr>
<td>35943</td>
<td>Lecture-Discussion</td>
<td>CCR</td>
<td>05:00 PM - 06:20 PM</td>
<td>W</td>
<td>1304 - Siebel Center for Comp Sci</td>
<td>Campbell, R</td>
</tr>
<tr>
<td>46417</td>
<td>Lecture-Discussion</td>
<td>FM</td>
<td>03:30 PM - 04:20 PM</td>
<td>F</td>
<td>-</td>
<td>Gunter, E Viswanathan, M</td>
</tr>
<tr>
<td>36448</td>
<td>Lecture-Discussion</td>
<td>GFX</td>
<td>ARRANGED -</td>
<td></td>
<td>ARR - Siebel Center for Comp Sci</td>
<td>Hart, J</td>
</tr>
<tr>
<td>35974</td>
<td>Lecture-Discussion</td>
<td>HCI</td>
<td>11:00 AM - 11:50 AM</td>
<td>T</td>
<td>ARR - Siebel Center for Comp Sci</td>
<td>Bailey, B Karahalios, K</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hour
Advanced Compiler Technology
Topic: Advanced Compiler Technology. Prerequisite: CS 426.

Credit Hours: 1 hour
Topic: Readings and Research in Bioinformatics. This Course will meet in 3401 SC

Credit Hours: 1 hour
Cloud Computing Research
Topic: Cloud Computing Research.

Credit Hours: 1 hour
Formal Methods Seminar

Credit Hours: 1 hour
Computer Graphics Seminar
Topic: Research Topics in Computer Graphics.

Credit Hours: 1 hour
Human-Computer Interaction
Topic: Seminar in Human-Computer Interaction. Course restricted to PhD Students only.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Type</th>
<th>Instructor</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>43828</td>
<td>Lecture-Discussion</td>
<td>Gupta, I</td>
<td>Distributed Systems Seminar. Topic: Advanced Seminar in Distributed Systems. Prerequisite: CS 598IG or CS 425 or any basic course on distributed systems.</td>
</tr>
<tr>
<td>41977</td>
<td>Lecture</td>
<td>Chekuri, C</td>
<td>PHD Orientation Seminar. Topic: Orientation for new PhD students.</td>
</tr>
<tr>
<td>65809</td>
<td>Lecture-Discussion</td>
<td>Rutenbar, R</td>
<td>Comp Arch Era of Custom Accel. Restricted to Graduate - Urbana-Champaign. TITLE: Computer Architecture in the Era of Custom Accelerators. The end of Moore's Law scaling for chips is having a remarkable side effect: dramatic and rising interest in special-purpose computer architectures to accelerate difficult computing tasks. Said differently: we don't just look at faster processors, or more cores, any longer. We are willing to look at new architectures. Examples abound. GPUs are now everywhere, from phones to supercomputers. The backend of the Microsoft Bing search engine runs on FPGAs. Intel has just purchased Altera, the world's biggest FPGA company. IBM, Intel and Qualcomm have just launched research groups to explore custom architectures to implement Machine Learning (ML) tasks. One of the world's fastest engines for protein folding was done entirely in custom silicon; the effort was led by a rather famous Wall Street hedge fund billionaire. Indeed, much of the action in high-frequency trading for computational finance happens on FPGAs, because competitive advantage is measured in fractions of a microsecond. Something BIG is happening here. In this course, we're going to grab several of the key papers in this area, read them and discuss them. LOGISTICS: Monday, 4-5:30 (mostly); one or a few days, Monday 5-6:30. ROOM: 3403 Siebel Center</td>
</tr>
<tr>
<td>41614</td>
<td>Lecture-Discussion</td>
<td>Campbell, R</td>
<td>Security Reading Seminar. Topic: Security Reading Seminar. Prerequisite: A prior course in security or CS423 or consent of instructor.</td>
</tr>
<tr>
<td>49716</td>
<td>Lecture-Discussion</td>
<td>Marinov, D Xie, T</td>
<td>Software Engineering Seminar. The info about the seminar will be posted on <a href="http://wiki.cites.illinois.edu/wiki/display/SoftEng">http://wiki.cites.illinois.edu/wiki/display/SoftEng</a> Please sign up for the soft-eng mailing list if interested in the seminar.</td>
</tr>
<tr>
<td>Course</td>
<td>Lecture-Discussion</td>
<td>Time</td>
<td>Day</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------</td>
<td>----------------</td>
<td>-----</td>
</tr>
<tr>
<td>35986</td>
<td>TA</td>
<td>03:00 PM - 03:50 PM</td>
<td>M</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours
Teaching Assistant Training
Restricted to Graduate - Urbana-Champaign.
Topic: TA Seminar; Teaching Assistant Training.

<table>
<thead>
<tr>
<th>Course</th>
<th>Lecture-Discussion</th>
<th>Time</th>
<th>Day</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>35949</td>
<td>TCS</td>
<td>10:00 AM - 10:50 AM</td>
<td>M</td>
<td>1304 - Siebel Center for Comp Sci</td>
<td>Prabhakaran, M</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours
Topics in Algorithms Seminar
Class meetings in 4403 SC. Topic: Topics in Algorithms. Prerequisite: CS 573 or 579.