Computer Science

CS 411  **Database Systems**  credit: 3 OR 4 hours.
Examination of the logical organization of databases: the entity-relationship model; the hierarchical, network, and relational data models and their languages. Functional dependencies and normal forms. Design, implementation, and optimization of query languages; security and integrity; concurrency control, and distributed database systems. 3 undergraduate hours. 3 or 4 graduate hours. Prerequisite: CS 225.

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<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
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<tr>
<td>41612</td>
<td>Online</td>
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<td>ARRANGED -</td>
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<td>Alawini, A</td>
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Restricted to MS: Civil Engr - Online - UIUC, MCS:Computer Sci Online -UIUC, MS:Mechanical Engineering -UIUC, MS: Aerospace Engr-Online-UIUC, NDEG:Grad Nondegree-CE-UIUC, NDEG:Undergrad Nondeg-CE-UIUC, or MCS: Computer Sci Online-UIUC. Restricted to online non-degree, online MCS, online MSAE, online MSME, and online MSCE students. For more details on this course section, please see http://engineering.illinois.edu/online/courses/.

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<td>30109</td>
<td>Lecture-Discussion</td>
<td>Q3</td>
<td>11:00 AM - 12:15 PM</td>
<td>MW</td>
<td>1404 - Siebel Center for Comp Sci</td>
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Credit Hours: 3 hours
For up-to-date information about CS course restrictions, please see the following link: http://go.cs.illinois.edu/CSregister

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<td>40086</td>
<td>Lecture-Discussion</td>
<td>Q4</td>
<td>11:00 AM - 12:15 PM</td>
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<td>1404 - Siebel Center for Comp Sci</td>
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Credit Hours: 4 hours
Restricted to Graduate - Urbana-Champaign.
For up-to-date information about CS course restrictions, please see the following link: http://go.cs.illinois.edu/CSregister