<table>
<thead>
<tr>
<th>Course Number</th>
<th>CS 484</th>
<th>Course Title</th>
<th>User Interface Design and Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester Hours</td>
<td>3</td>
<td>Course Coordinator</td>
<td>Tong Shu</td>
</tr>
<tr>
<td>Catalog Description</td>
<td>Problems and processes in the design of highly usable systems. Understanding stakeholders, requirements, tasks, prototyping, evaluation, guidelines and design process and heuristics. Interactive software concepts and implementation considerations. A group project is an integral part of this course.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Textbooks**


**References**


**Course Learning Outcomes**

- To learn about usability and the value of involving users in an iterative incremental development process.
- To be able to apply prototyping and evaluation skills to interaction design.
- To be able to understand and apply common design notations to interaction design problems.
- To be able to apply and appreciate design heuristics and usability testing to interaction design problems.
- To gain experience and appreciation of team development work.

**Assessment of the Contribution to Student Outcomes**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessed</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Prerequisites by Topic**

CS 306 with a grade of C or better or graduate standing.
Major Topics Covered in the Course

1. Introduction to Interaction and Usability {3 classes}
2. Frameworks and Styles of Interaction {3 classes}
3. Processes for Interaction Design {4 classes}
4. Discovering Requirements {4 classes}
5. User & Task Analysis {3 classes}
6. Guidelines and Standards for Interface Design {4 classes}
7. Prototyping {4 classes}
8. Evaluation and Usability Testing {3 classes}
9. Constructing User Interface Software {3 classes}
10. Design Techniques and Heuristics {3 classes}
11. Design Models and Metrics {3 classes}
12. Patterns in HCI/ID, Future Directions etc. {3 classes}

NOTE: When course is taken as 500-level credit (CS 591 “Special Topics”), there will be additional requirements such as a research project.