1. **Course number and name:** CSCI 4235 Human Computer Interaction

2. **Credits and contact hours:** 3 credit, 3 contact

3. **Instructor’s or course coordinator’s name:** Lixin Li, PhD

4. **Textbook, title, author and year:** None
   a. **Other supplemental materials:** None

5. **Specific course information**
   a. **Brief description of the content of the course (Catalog Description)**
      Human-Computer Interaction applies knowledge about how human beings perceive the world, think, remember and solve problems to the design of complex computer software. HCI goes beyond the construction of good user interfaces to specify how software projects are developed, tested and deployed. An important part of this course will emphasize field work practices for such things as user requirements gathering and usability testing.
   b. **Prerequisites:** A minimum grade of “C” in CSCI 3230
   c. **Indicate whether a required, elective, or selected elective course in the program**
      Elective course for BS-CS.

6. **Specific goals for the course**
   a. **Specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic.**

<table>
<thead>
<tr>
<th>Course Learning Outcomes</th>
<th>Student Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand HCI’s role in accommodating human ability and limitations</td>
<td>1i</td>
</tr>
<tr>
<td>Demonstrate a conceptual vocabulary for analyzing human interaction with software: affordance, conceptual models, and feedback</td>
<td>1i</td>
</tr>
<tr>
<td>Demonstrate skills in using modern human memory techniques</td>
<td>1i</td>
</tr>
<tr>
<td>Demonstrate basic negotiating skills</td>
<td>1i</td>
</tr>
<tr>
<td>Understand the importance of the user experience (UX)</td>
<td>1b, 1i</td>
</tr>
<tr>
<td>Understand and apply the fundamental design principles of a user interface</td>
<td>1b, 1i</td>
</tr>
</tbody>
</table>
b. Student Outcomes:
   - 1a: An ability to apply knowledge of computing and mathematics appropriate to the discipline
   - 1b: An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
   - 1i: An ability to use current techniques, skills, and tools necessary for computing practice
   - 2a: An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices

7. Brief list of topics to be covered
   - Human Factors
   - “how to write a killer one page proposal”
   - Human beings, how they work (memory, personality, cognitive style)
   - Need finding
   - Various Prototyping
   - Heuristic evaluation
   - Design heuristics