# SELF-ASSESSMENT OF USU CS COURSE
## BY INSTRUCTOR

**Course:** CS 6050 Computational Geometry  
**Semester:** Spring 2007  
**Instructor:** Minghui Jiang

<table>
<thead>
<tr>
<th>List Course OUTCOME</th>
<th>Assessment tool and passing criteria</th>
<th>% Passing</th>
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<tbody>
<tr>
<td>Gain knowledge on a variety of computational and mathematical problems in discrete geometry and their applications.</td>
<td>Homework assignments and classroom interaction.</td>
<td>100%</td>
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<tr>
<td>Be able to utilize fundamental geometric data structures and algorithmic design techniques for the solution of new computational problems in discrete geometry.</td>
<td>Homework assignments, exploratory assignments.</td>
<td>80%</td>
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<tr>
<td>Be able to implement basic geometric algorithms using standard programming languages.</td>
<td>Programming assignments.</td>
<td>100%</td>
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<tr>
<td>Be prepared for theoretical research in discrete and computational geometry.</td>
<td>Exploratory assignments, project.</td>
<td>80%</td>
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**Self assessments of strengths and weaknesses this semester (what worked, what did not work):**

**What worked:**
1. Explorative assignments that investigate new geometric problems by experiments,
2. Programming assignments of basic geometric algorithms on convex hulls and Delaunay triangulation,
3. Mini-conferences with individual presentation and discussion,
4. Individual projects instead of final exam,
5. Basic topics for the first half and advanced (research) topics for the second half of the semester.

**What didn’t work:**
A 20% score for classroom interaction does not encourage participation as hoped: quiet and shy students remain quiet and shy; talkative students participate in discussion without prompts. In fact, this policy might have made some students nervous.

**Recommendations of changes to implement next offering:**
1. Get rid of the 20% score for classroom interaction; instead ask the quiet students questions directly to encourage interaction.
2. Delaunay triangulation is a bit too difficult for most students: either switch to an easier topic or spend more time on it.
3. Integrate the research topics in the second half of the semester with individual projects.