An Introduction to the Project

1. Evidence-based practices
2. Broadly relevant
3. Collaboration
4. Discovery/Novel
5. Iteration

Faculty review of data and iteration on course design

Course development and year long FLCs

Survey administration and analysis entirely supported by Institutional Research and Assessment

Student’s perceptions of the essential CURE design features align with instructors perceptions of CURE design features.

<table>
<thead>
<tr>
<th>Course</th>
<th>Number of Surveys Respondents (N)</th>
<th>Collaboration Mean</th>
<th>Discovery/Novel Mean</th>
<th>Iteration Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetics</td>
<td>20</td>
<td>3:33</td>
<td>3:33</td>
<td>1:67</td>
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<tr>
<td>Polymer Chemistry</td>
<td>6</td>
<td>2:34</td>
<td>1:17</td>
<td>1:5</td>
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<tr>
<td>Psychology of Language</td>
<td>7</td>
<td>7:34</td>
<td>4:43</td>
<td>0:96</td>
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<td>Astronomy</td>
<td>8</td>
<td>1:12</td>
<td>2:5</td>
<td>1:87</td>
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<tr>
<td>Analytical Chemistry</td>
<td>10</td>
<td>1:20</td>
<td>4:3</td>
<td>1:5</td>
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<td>Statistics in Psychology</td>
<td>220</td>
<td>3:69</td>
<td>7:26</td>
<td>5:69</td>
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<td>Organic Chemistry</td>
<td>411</td>
<td>5:52</td>
<td>4:87</td>
<td>6:97</td>
</tr>
</tbody>
</table>

“I would have liked to allow students more control in choosing experimental methods to use. However, students are presented with a novel problem in genetics. That means it is not easy to figure out how to solve that problem. It would take more than one semester to teach them all the potential methods before they have to choose some to use to solve the research problem.”

– Instructor of Genetics

“I suspect the larger class size limited the perception of discovery in some aspects as formulating hypotheses because of the consensus approach we took with hypothesis generation.”

– Instructor of Statistics in Psychology

“If I’d be curious to see how my TAs answered these questions, I’d like to think more about TA training in the future and how the TAs communicate with students about the process of science.”

– Instructor of Organic Chemistry

Conclusions

- Most faculty developed a CURE with strong CURE features-- the focus of our year-long learning communities.
- Asking faculty to answer questions congruent to the student LCAS and additional ownership questions provide faculty data about whether students experience the course the way they planned.
- Discrepancies between student vs. faculty perceptions help faculty fine tune design, instructor talk, and TA training.
- A data-driven approach supported by institutional assessment each semester has motivated faculty to continually improve.

Want to learn more about our nearly 40 CURE courses?
Please visit: QEP.unc.edu

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