AskOski (https://askoski.berkeley.edu) draws together information distributed throughout the University into a central platform allowing students to illuminate their academic terrain like never before. The system incorporates degree audit, course description, and historic enrollment information combined with machine learning to help students explore their interests, connecting course concepts across departments, while satisfying complex constraints of their programs.

The project is an effort started in the summer of 2016, supported by NSF EAGER awards (#1547055 and 1446641), developed in close collaboration with the Office of the Registrar, IS&T, and the Office of Planning and Analysis. It has made higher education a first-class beneficiary of the latest techniques in AI and natural language processing and catalyzed conversations on the role of big data and learning analytics on campus. The system is in continual development, grappling with aiding students in achieving their personal goals while retaining the values and pedagogical objectives of the institution.

In addition to forwarding the educational mission of the University, the project has also contributed to its research mission. A recent paper [1] details the machine learning behind the system, its development, and deployment, and a user study that informed its design. The platform scored high in user intent to use (4.25/5) and underscored the variety of resources, internal and external, students are consulting to address their many enrollment considerations. Ongoing data science and usability research with direct implications for practice will insure that the platform continues to evolve.

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Walter Wong (Office of the Registrar)

**Mobility:** A primary objective going forward is to improve upward mobility by using this technology to make it easier for students to identify their intended major(s) and select courses that will articulate. Our AI approaches will be used to automate the identification of viable pathways to transfer and candidate courses that could expand articulations between institutions. We will be pursuing pilots of these ideas with our multi-site partners, Laney College and UC Irvine.

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**Example Use Case**

2. A preference for more “Statistical” classes is specified

3. Classes that satisfy a degree requirement, are relevant* to Statistics, and are offered in the next semester are shown

*Subject relevance estimated using machine learning

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**Student chooses to display only classes that satisfy a degree requirement**

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**Considerations for Fall 18:**

<table>
<thead>
<tr>
<th>CCN</th>
<th>Course Name</th>
<th>Course Subject</th>
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<tbody>
<tr>
<td>23956</td>
<td>Concepts of Statistics (135)</td>
<td>Statistics</td>
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<tr>
<td>31516</td>
<td>Applied Econometrics and Public Policy (C142)</td>
<td>Economics</td>
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<td>Economic Statistics and Econometrics (140)</td>
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<td>25139</td>
<td>Introduction to Development (C32)</td>
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<td>Introduction to Population Analysis (110)</td>
<td>Demography</td>
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<td>31516</td>
<td>Applied Econometrics and Public Policy (C131A)</td>
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<tr>
<td>29028</td>
<td>Introduction to Probability and Statistics in Biology and Public Health (142)</td>
<td>Public Health</td>
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