Project Goal

Increase the number of engineering graduates at Iowa State by 100 per year to approximately 900 graduates annually. Included with this goal is an increase in the percentage of women and minority graduates in engineering at Iowa State and the number of pre-engineering students at Des Moines Area Community College.

Logic Model Planning

Resources

Activities

Outputs

Outcomes

Impact

Sustainable Outcomes:
1. DMACC’s EGR 100 targets students with key learning objectives in mind to improve their success and retention.
2. DMACC’s pre-engineering program allows engineering transfer students to complete the Basic Program courses prior to transferring.
3. Data briefs share information with institutional stakeholders and are available to interested parties in print (ISSN 2153-3970) and online (071-36-731).

Challenges

Building a culture that embraces transfer student programming through professional and program development

Leveraging learning community best practices to retain students at the second- and third-year levels, ultimately contributing to higher graduation rates

Using synergistic partnerships (e.g., with ISU Extension) to develop new resources and create interest in engineering study and careers

Recruiting and retaining women to make up 20% of engineering graduates

Measuring and documenting the SEEC Effect to improve and sustain effective practices and promote a culture of evidence

Sustained Efforts

- Engineering Admissions Partnership (EAPP) continues as an established learning community at Iowa State University.
- New engineering messaging has been adopted in all recruiting materials at Iowa State.
- Engineering 100 continues to expand and is now offered on four DMACC campuses.
- Discover Engineering Days for high school students continue at DMACC and have expanded to include other career areas.

Results

2007-2013 Engineering Enrollment and Graduates

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>729</td>
<td>283</td>
</tr>
<tr>
<td>2008</td>
<td>1013</td>
<td>369</td>
</tr>
<tr>
<td>2009</td>
<td>1277</td>
<td>373</td>
</tr>
<tr>
<td>2010</td>
<td>13</td>
<td>20</td>
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</table>

2006-2012 Increases

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>58%</td>
<td>56%</td>
</tr>
<tr>
<td>2007</td>
<td>11%</td>
<td>23%</td>
</tr>
<tr>
<td>2008</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>2009</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>2010</td>
<td>18%</td>
<td>18%</td>
</tr>
</tbody>
</table>

2007-2013 DMACC EGR 100 and E2020

<table>
<thead>
<tr>
<th>Year</th>
<th>EGR 100 Graduates</th>
<th>E2020 Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td>2008</td>
<td>300</td>
<td>200</td>
</tr>
<tr>
<td>2009</td>
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<td>300</td>
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<tr>
<td>2010</td>
<td>500</td>
<td>400</td>
</tr>
<tr>
<td>2011</td>
<td>600</td>
<td>500</td>
</tr>
</tbody>
</table>

Connections

SEEC Team Members

Principal Investigators
- David Kissinger
- Dave McMillen
- Gary Mirka
- Sandy Jennings-Hammond

Senior Personnel
- Mary McIlvaine
- Mary McIlvaine
- Mary McIlvaine
- Mary McIlvaine

Other Personnel
- Kevin Miller
- Kevin Miller
- Kevin Miller
- Kevin Miller

Advisory Boards
- ISU Institutional Review Board
- ISU Institutional Review Board
- ISU Institutional Review Board
- ISU Institutional Review Board

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