Accomplishments 2021-2022
May 31, 2022
Stephen Waller, Dean of Instruction

Vision for Success Goal #1:
Increase by at least 20 percent the number of CCC students annually who acquire associates degrees, credentials, certificates, or specific skill sets that prepare them for an in-demand job.

Strategic Initiative 1 - Student Learning
Strategic Initiative 2 - Student Progression and Completion

Accomplished Items from Work Plan
Increase STEM student momentum point attainment. (Data for 2021 AY still pending)

<table>
<thead>
<tr>
<th>STEM Pathway Momentum Points</th>
<th>2019</th>
<th>2020</th>
<th>2021 Goal</th>
<th>2022 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 units in 1st semester</td>
<td>20.0%</td>
<td>18.5%</td>
<td>22.2%</td>
<td>25.9%</td>
</tr>
<tr>
<td>30 units in 1st year</td>
<td>19.1%</td>
<td>16.0%</td>
<td>19.2%</td>
<td>22.4%</td>
</tr>
<tr>
<td>ENGL B1A completion in 1st year</td>
<td>34.9%</td>
<td>29.0%</td>
<td>34.8%</td>
<td>40.6%</td>
</tr>
<tr>
<td>Transfer math completion in 1st year</td>
<td>26.2%</td>
<td>21.4%</td>
<td>25.7%</td>
<td>30.0%</td>
</tr>
</tbody>
</table>

Increase STEM degree completions. (Data for 2021 AY still pending)

<table>
<thead>
<tr>
<th>STEM Degree Completions</th>
<th>2019</th>
<th>2020</th>
<th>2021 Goal</th>
<th>2022 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology AS and AS-T</td>
<td>36</td>
<td>23</td>
<td>35</td>
<td>46</td>
</tr>
<tr>
<td>Chemistry AS and AS-T</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Computer Science AS-T</td>
<td>20</td>
<td>32</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>Engineering AS</td>
<td>15</td>
<td>18</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td>Geology AS-T</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics AS and AS-T</td>
<td>44</td>
<td>35</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Physics AS-T</td>
<td>33</td>
<td>23</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td><strong>All STEM</strong></td>
<td><strong>153</strong></td>
<td><strong>132</strong></td>
<td><strong>158</strong></td>
<td><strong>185</strong></td>
</tr>
</tbody>
</table>

Improve faculty FTES and resources to improve discipline FTES. (Data for 2021 AY still pending)

<table>
<thead>
<tr>
<th>Discipline (Annual FTES)</th>
<th>2019-20</th>
<th>2020-21</th>
<th>2021-22 Goal</th>
<th>2022-23 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR</td>
<td>40.0</td>
<td>35.3</td>
<td>24.0</td>
<td>30.0</td>
</tr>
<tr>
<td>BIOL</td>
<td>700.8</td>
<td>1005.8</td>
<td>1100.0</td>
<td>1400.0</td>
</tr>
<tr>
<td>CHEM</td>
<td>316.1</td>
<td>383.0</td>
<td>395.0</td>
<td>422.2</td>
</tr>
<tr>
<td>ENGR</td>
<td>72.4</td>
<td>98.5</td>
<td>84.0</td>
<td>90.5</td>
</tr>
<tr>
<td>ERSC</td>
<td>84.9</td>
<td>89.7</td>
<td>94.2</td>
<td>99.6</td>
</tr>
<tr>
<td>GEOG</td>
<td>79.1</td>
<td>75.3</td>
<td>78.8</td>
<td>82.3</td>
</tr>
<tr>
<td>GEOL</td>
<td>135.5</td>
<td>121.4</td>
<td>127.5</td>
<td>133.9</td>
</tr>
<tr>
<td>MATH</td>
<td>1269.6</td>
<td>1449.7</td>
<td>1522.2</td>
<td>1598.3</td>
</tr>
<tr>
<td>PHSC</td>
<td>51.7</td>
<td>42.8</td>
<td>45.6</td>
<td>53.5</td>
</tr>
<tr>
<td>PHYS</td>
<td>115.6</td>
<td>137.1</td>
<td>120.2</td>
<td>142.8</td>
</tr>
</tbody>
</table>
Improved the following processes to ensure students stay on the path to progression and completion and improve FTES.

- **Enrollment Management Strategies**
  - Increased Health Science pre-req science course capacity
    - Increased biology recruiting by adding new fulltime and part-time faculty. This was supported by the Aspire STEM faculty diversification effort.
  - Improved math student success
    - Restructured the Math Learning Center to shift the faculty coordinator to teaching transfer university-level courses and eliminated pre-transfer level courses. The coordinator position is being shifted to a 12-month fulltime center lead, matching the structure of the Writing Center. Worked with the math faculty to create new non-credit learning options to provide more just-in-time support for students needing a review of math concepts that are foundational to their success in transfer university-level math courses.
    - Provided new professional development opportunities directly to BC math faculty that are tailored specifically to improve BC student learning. This used a partnership with a national NSF I-USE grant “Bridge to STEM Excellence”. BC math faculty were provided with two workshops exclusively for them to develop student engagement strategies in the STEM-pathway math courses.
  - Improve rural, inmate, and BS Southwest STEM course and program options
    - Assigned faculty to critical math courses across the curriculum at Delano and BC Southwest. *(final data in progress)*
    - Worked with the Rising Scholars team to provide foundational courses in the prisons for the completion of the BSIA program and others, including courses such as PHSC B12 and MATH B22. Currently recruiting a fulltime
  - Improve communications to STEM students (Get on the Path. Stay on the Path)
    - Worked with the STEM Completion Coaching Team to develop weekly messages that were sent to students and faculty via email.
    - Used our STEM Education Advisor and student workers to reach STEM students needing to complete math but failed on their 1st attempt.

**Vision for Success Goal #2:** *Increase by 35 percent the number of CCC students transferring annually to a UC or CSU.*

**Strategic Initiative 1 - Student Learning**

**Strategic Initiative 2 - Student Progression and Completion**

**Accomplished Items from Work Plan**

Improved the following processes will ensure students stay on the path to progression and completion

- Developed new “Grow our own” program with CSUB and UC Merced
  - The effort was shifted to the new Interim Associate Dean for STEM, and the initiative was renamed CV PATH. Funding came from grants at CSUB and UC Merced to start some BC students and faculty doing research projects at CSUB in Summer 2022.
- Led English and Math Success Group with Jennifer Jett
  - Developed summer Math Bootcamps that aligned with the BC Summer Bridge program.
**Vision for Success Goal #3:** Decrease the average number of units accumulated by CCC students earning associate’s degrees, from approximately 87 total units (the most recent system wide average) to 79 total units—the average among the quintile of colleges showing the strongest performance on this measure.

**Strategic Initiative 1 - Student Learning**

**Strategic Initiative 2 - Student Progression and Completion**

**Accomplished Items from Work Plan**

Improving the following processes will ensure students stay on the path to progression and completion

- Increase directed communications to STEM students with high unit counts
  - Use KCCD data systems to identify STEM students with high unit count and use Ocelo to text them with directions for counseling. *(in progress this summer 2022)*

**Vision for Success Goal #4:** Increase the percent of exiting CTE students who report being employed in their field of study, from the most recent statewide average of 60 percent to an improved rate of 69 percent—the average among the quintile of colleges showing the strongest performance on this measure.

**Strategic Initiative 1 - Student Learning**

**Strategic Initiative 2 - Student Progression and Completion**

**Accomplished Items from Work Plan**

Improving the following processes will ensure student learning and hands-on experience in chosen field of study

- Provide enhanced non-credit math support through pathways-focused sections and support sessions. Had discussions with Engineering and Physical Science faculty on developing new non-credit support. The new Associate Dean of STEM was tasked with creating a new summer STEM Academy.
- Catalyzed the joint development of a new Calculus for Biological Sciences sequence, so our BC Biology AS-T students can learn calculus in the context of their educational goals instead of learning calculus for Engineering.
- Created (in collaboration with math faculty) summer Math Bootcamps to provide college preparation (CDCP) relevant to student’s pathway.

**Vision for Success Goal #5:** Reduce equity gaps across all of the above measures through faster improvements among traditionally underrepresented student groups, with the goal of cutting achievement gaps by 40 percent within 5 years and fully closing those achievement gaps for good within 10 years.

**Strategic Initiative 1 - Student Learning**

**Strategic Initiative 2 - Student Progression and Completion**

**Accomplished Items from Work Plan**

Improved the following processes will ensure students stay on the path to progression and completion of momentum points and close achievement gaps

- Expanded the MESA program
  - Hired new Program Director
  - Developed a Upward Bounds Grant application with the new MESA Program Director.
- Revised and codify the Aspire Faculty Diversification Program
  - Created a new “Aspire Light” program that does not require faculty mentoring time when faculty are not available to support the full program. Most of this work was done
by Maria Wright, but also worked with Dr. Joe Saldivar to add classroom observation experiences.

Strategic Direction #4 – Leadership and Engagement

Accomplished Items from Work Plan
Improved the following processes will ensure that the Guided Pathways framework is at the heart of everything we do at BC

- Expand grant writing across the College
  - Hire new BC Director of Grants and Resources Development (still in progress and may be redirected)
  - Updated Grants webpage with Oliver Rosales.
  - Organized and ran two new grant development workshops. (will add more details)
  - Worked with the members of the BC Grant Development team to support the writing and submission of multiple grants. (will add more details)

Additional Accomplished Items not in Last Year’s Work Plan

- Provided the foundational curriculum and budget information for the submission of a new BS Research Laboratory Technology degree.

Professional Presentation Since July 1, 2021