PLAN D Discussion

DORA ESCOBAR - COUNSELOR
LEONOR AGUILERA - ARTICULATION OFFICER/COUNSELOR
Preface

- **Summary of Plan D discussions**
  - This degree is NOT a transfer degree
  - It’s a new local general education degree

- The proposed Plan D meets Title 5 regulations

- Looking at STEM students only
Summary of Plan D Discussion

- Origins of Plan D
  - Celebrate STEM student accomplishments
  - Capture “Completers” of educational goals
  - Having a competitive edge
- Used STEM Database
  - Fall 2010 to Spring 2016
- Introduced Plan D

STEM STUDENT AWARD SUMMARY

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>TOTAL</th>
<th>PCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without GE Certifications</td>
<td>26</td>
<td>1%</td>
</tr>
<tr>
<td>With GE Certification &amp; AA/AS/AAT/AST</td>
<td>354</td>
<td>23%</td>
</tr>
<tr>
<td>No Awards</td>
<td>1167</td>
<td>75%</td>
</tr>
<tr>
<td>Only Associates, no GE Certif.</td>
<td>11</td>
<td>1%</td>
</tr>
<tr>
<td>STEM Students</td>
<td>1558</td>
<td>100%</td>
</tr>
</tbody>
</table>
How Plan D aligns with UC’s Seven Course Breadth Pattern
Try to use words that will help direct the growth of your company, but be as concise as possible.

### Comparison of Plan D

<table>
<thead>
<tr>
<th>Title V Regulations for Local Associate Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Minimum of 18 units of general education consisting of the following areas:</td>
</tr>
<tr>
<td>- Natural Sciences (3 units)</td>
</tr>
<tr>
<td>- Social and Behavioral Sciences (3 units)</td>
</tr>
<tr>
<td>- Humanities (3 units)</td>
</tr>
<tr>
<td>- Language and Rationality</td>
</tr>
<tr>
<td>- English Composition (3 units)</td>
</tr>
<tr>
<td>- Communication and Analytical Thinking (3 units)</td>
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<tr>
<td>- Ethnic Studies has to be offered in an area</td>
</tr>
<tr>
<td>- Math at least Intermediate Algebra or higher</td>
</tr>
<tr>
<td>- Remainder of units may be from the areas listed above or as determined by the local degree.</td>
</tr>
<tr>
<td>• NOTE: Title V does not require Proficiencies or Lifelong Understanding and Self-Development.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plan A (LOCAL DEGREE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Area A: Natural Science (3 units)</td>
</tr>
<tr>
<td>• Area B Social &amp; Behavioral Sciences:</td>
</tr>
<tr>
<td>- B1 (3 units)</td>
</tr>
<tr>
<td>- B2 (3 units)</td>
</tr>
<tr>
<td>• Area C: Humanities (3 Units)</td>
</tr>
<tr>
<td>• Area D: Cultural Breadth (3 Units)</td>
</tr>
<tr>
<td>• Area E: Language and Rationality</td>
</tr>
<tr>
<td>- E1 (3 units)</td>
</tr>
<tr>
<td>- E2 (3 units)</td>
</tr>
<tr>
<td>• Area F: Lifelong Understanding and Self-Development:</td>
</tr>
<tr>
<td>- F1 (2-3 units)</td>
</tr>
<tr>
<td>- F2 (1 unit)</td>
</tr>
<tr>
<td>• Proficiencies:</td>
</tr>
<tr>
<td>- Math</td>
</tr>
<tr>
<td>- Reading</td>
</tr>
<tr>
<td>- Oral Communication</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plan D AS Degree (LOCAL DEGREE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Area A: English and Critical Thinking</td>
</tr>
<tr>
<td>- A1 (3 units)</td>
</tr>
<tr>
<td>- A2 (3 units)</td>
</tr>
<tr>
<td>• Area B: Mathematics and Quantitative Reasoning (3 units)</td>
</tr>
<tr>
<td>• Area C: Arts and Humanities (3 units)</td>
</tr>
<tr>
<td>• Area D: Social and Behavioral Sciences (3 units)</td>
</tr>
<tr>
<td>• Area E: Physical and Biological Sciences (3 units)</td>
</tr>
<tr>
<td>• Proficiencies:</td>
</tr>
<tr>
<td>- Math</td>
</tr>
<tr>
<td>- Reading</td>
</tr>
<tr>
<td>- Cultural Diversity</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Seven Course Breath Pattern (For UC Transfer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 2 courses in English Composition</td>
</tr>
<tr>
<td>• 1 course in mathematical concepts and quantitative reasoning</td>
</tr>
<tr>
<td>• 4 courses from at least 2 of the following subject areas:</td>
</tr>
<tr>
<td>- Arts and Humanities</td>
</tr>
<tr>
<td>- Social and Behavioral Sciences</td>
</tr>
<tr>
<td>- Physical and Biological Science</td>
</tr>
</tbody>
</table>

STEM students typically take either an Arts and Humanities OR a Social and Behavioral Sciences course. Plan D requires them to take ONE from each area.

Honors Program has also changed their units from 18 to 15 to align with other CCC’s and help more STEM students complete the program. Their new Categories fall in line with Plan D.
Placement of courses on Plan A versus Plan D

- What is the probable impact of GE Areas B1, B2, F1, F2, and Oral Communication?
What is the Probable Impact of GE Areas B1, B2, F1, F2 and Oral Communication Courses?

- Recalculated STEM student data
  - STEM students with 60+ units
  - 1558 STEM students - 750 completed 60+ units
    - 18 completed CSU or IGETC Certification
    - 311 completed Associate degree + GE Certification
    - 8 completed an Associate degree only
    - 413 did not complete any awards
Behavior of STEM Student Enrollment in GE Areas B1, B2, F1, F2 and Oral Communication Courses

- 749 students identified by the STEM Academy/(STEM)^2 Program Database (Fall 2010-Spring 2016)
- STEM students attempted 3918 courses from Summer 2009-Spring 2016
  - 679 (90.65%) STEM students had academic history that matched the courses in areas B1, B2, F1 and F2
  - 70 (9.35%) STEM students did not attempt courses in areas B1, B2, F1, F2, and Oral Communication
- See Data for STEM Students from Summer 2009-Spring 2016 provided by Aaron Voelcker
How many students would have graduated with Plan D if it was a GE option?

- Out of 413 students
  - 198 students (60 had SAC degrees, 58 had SCC degrees, 80 were not STEM)
  - 187 (45.2%) students would have met the requirements for Plan D
    - 43% (Hispanic/Mexican/Chicano/South American)
    - 30% (White/White Non Hispanic)
    - 18% Asian (Asian Indian, Asian, Chinese, Filipino, Japanese, Other Asian, Vietnamese)
    - 9% did not respond
  - 28 students were missing a course or transferable units
CSUF was just awarded another HSI STEM grant totaling approximately $6 million dollars over 5 years and SCC will be a partnering community college!

Plan D gives students an AS Degree option if they do not complete Plan A, B or C general education requirements.

Students will have an AS Degree as a back up in case they do not continue their studies at a university.
Employment of life, physical, and social science occupations is projected to grow 7 percent, about as fast as the average from 2014 to 2024, which will result in about 97,600 new jobs.

The median annual wage for life, physical, and social science occupations was $62,160 in May 2015, which was higher than the median wage for all occupations of $36,200.

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>JOB SUMMARY</th>
<th>ENTRY-LEVEL EDUCATION</th>
<th>2015 MEDIAN PAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear Technicians</td>
<td>Nuclear technicians assist physicists, engineers, and other professionals in nuclear research and nuclear energy production. They operate special equipment used in these activities and monitor the levels of radiation that are produced.</td>
<td>Associate's degree</td>
<td>$80,260</td>
</tr>
<tr>
<td>Geological and Petroleum Technicians</td>
<td>Geological and petroleum technicians provide support to scientists and engineers in exploring and extracting natural resources, such as minerals, oil, and natural gas.</td>
<td>Associate's degree</td>
<td>$55,610</td>
</tr>
<tr>
<td>Chemical Technicians</td>
<td>Chemical technicians use special instruments and techniques to help chemists and chemical engineers research, develop, produce, and test chemical products and processes.</td>
<td>Associate's degree</td>
<td>$44,660</td>
</tr>
<tr>
<td>Environmental Science and Protection Technicians</td>
<td>Environmental science and protection technicians monitor the environment and investigate sources of pollution and contamination, including those affecting public health. In addition, they work to ensure that environmental violations are prevented.</td>
<td>Associate's degree</td>
<td>$43,030</td>
</tr>
<tr>
<td>Agricultural and Food Science Technicians</td>
<td>Agricultural and food science technicians assist agricultural and food scientists by performing duties such as measuring and analyzing the quality of food and agricultural products.</td>
<td>Associate's degree</td>
<td>$36,480</td>
</tr>
<tr>
<td>Atmospheric Scientists</td>
<td>Atmospheric scientists study the weather and climate, and how these factors affect living organisms and human activities.</td>
<td>Associate's degree</td>
<td>$37,100</td>
</tr>
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