Building Data on First-Year English & Math Redesign: Structure, Models, & Pedagogy
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What is First-Year English & Math Redesign? And why is it important?

How do we assess and place incoming college students?

What is the “best” math pathway for new students to take? How do we implement curricular redesign to scale?

How can we assess English Redesign outcomes?
If co-requisites reduce student completion of college-level English from as many as four semesters to one... How do students do in higher-level courses after completing English 100?

What do we think is working? Where are we struggling? Where are we headed?

Joshua Kaakua (Admin.)
jkaakua@hawaii.edu

Pearl Iboshi (Data)
iboshi@hawaii.edu

Samantha Bowe (Math)
ss30@hawaii.edu

Jeff Stearns (English)
stearns@hawaii.edu
Key Elements to UH Redesign

• **Multiple measures** to assess & place new students;

• **College-level courses**: Redesign and reduction or elimination of traditional English and Math remediation and pre-requisite/developmental curriculum pathway;

• **Co-requisite** and **accelerated** instruction;

• Multiple **Math Pathways**: Algebra/Calculus? Statistics? College Math?

• **Data informed** – Student Success is what matters
Redesign of English & Math

• What is the goal of post-secondary education? Open-access institutions?
• Why English (writing) & Math?
• Access to remediation is not Access to college
• Attrition, tradition, & the bridge to nowhere
• Success is what counts
• National Reform (CA, CO, FL, GA, TN, TX...)
Hawaiʻi Graduation Initiative Priorities
AY 2018-19 Targeted Milestones

First Year Success
- Students complete college-level Math and English in first year
- Informed choice connected to career & curricular pathways.

Online Education
- Enrollment opens for online, 5-week AA for Fall 2019
- Announcement of online, 5-week bachelors for Fall 2020

Transfer
- Students secure 4-year pathway early.

Returning Adults
- Student supports implemented for returning students
- Campaign launched to enroll students with “some credit, no degree” in Fall 2019
80% retention rates for UHCC full-time students with English and Math in the first year, 20 percentage points higher

Freshmen Completing College Level English & Math by End of 1st Academic Year, Associate-Seeking, First-time, Full-time Students

UHCC Subtotal

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Fall 2008</th>
<th>Fall 2009</th>
<th>Fall 2010</th>
<th>Fall 2011</th>
<th>Fall 2012</th>
<th>Fall 2013</th>
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<th>Fall 2015</th>
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Fall 2008 - 2017
Part time CC students with English and Math in the first year have 81% retention rates, 37 percentage points higher

Freshmen Completing College Level English & Math by End of 1st Academic Year, Associate-Seeking, First-time, Part-time Students

UHCC Subtotal

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<th>Fall 2008</th>
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<th>Fall 2011</th>
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<th>Fall 2013</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
<th>Fall 2017</th>
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<td>37</td>
<td>38</td>
<td>40</td>
<td>38</td>
<td>38</td>
<td>34</td>
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</table>
Increase in College-level English Completion

FY English Completion (% of cohort completed Eng 100 in first year)

<table>
<thead>
<tr>
<th>College</th>
<th>2013</th>
<th>2017</th>
<th>Increase</th>
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</thead>
<tbody>
<tr>
<td>UHCC Total</td>
<td>37%</td>
<td>52%</td>
<td>15%</td>
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<tr>
<td>Hawai‘i CC</td>
<td>21%</td>
<td>29%</td>
<td>8%</td>
</tr>
<tr>
<td>Honolulu CC</td>
<td>32%</td>
<td>55%</td>
<td>23%</td>
</tr>
<tr>
<td>Kapilolani CC</td>
<td>33%</td>
<td>53%</td>
<td>20%</td>
</tr>
<tr>
<td>Kaua‘i CC</td>
<td>38%</td>
<td>56%</td>
<td>18%</td>
</tr>
<tr>
<td>Leeward CC</td>
<td>38%</td>
<td>58%</td>
<td>20%</td>
</tr>
<tr>
<td>Maui College</td>
<td>39%</td>
<td>56%</td>
<td>17%</td>
</tr>
<tr>
<td>Windward CC</td>
<td>36%</td>
<td>51%</td>
<td>15%</td>
</tr>
</tbody>
</table>

n_{2013} = 5,017, n_{2017} = 3,603
Increase in College-level Math Completion

FY Math Completion (% of cohort completed Math 100+ in first year)

<table>
<thead>
<tr>
<th>College</th>
<th>2013</th>
<th>2017</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHCC Total</td>
<td>14%</td>
<td>35%</td>
<td>21%</td>
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<tr>
<td>Hawai‘i CC</td>
<td>6%</td>
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<td>22%</td>
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<tr>
<td>Honolulu CC</td>
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<td>19%</td>
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<td>Kapi‘olani CC</td>
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<tr>
<td>Kaua‘i CC</td>
<td>20%</td>
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<td>15%</td>
</tr>
<tr>
<td>Leeward CC</td>
<td>13%</td>
<td>42%</td>
<td>29%</td>
</tr>
<tr>
<td>Maui College</td>
<td>10%</td>
<td>41%</td>
<td>31%</td>
</tr>
<tr>
<td>Windward CC</td>
<td>16%</td>
<td>27%</td>
<td>11%</td>
</tr>
</tbody>
</table>

n_{2013} = 5,547, n_{2017} = 3,927
Alternative measures for placement to increase placement accuracy

- Using alternatives to single high-stakes exam for placement into college level courses

- Self-Reported Measures include using
  - Cumulative High School GPA of 2.6; or
  - High school grades in specified classes; or
  - ACT, SAT, Smarter Balanced, GED, HiSET, Writing Sample
# UHCC College-level Placement Criteria, 2017

## English (any of the following)

<table>
<thead>
<tr>
<th>Test/Subject</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT English</td>
<td>18 or higher</td>
</tr>
<tr>
<td>SAT Writing</td>
<td>510 or higher</td>
</tr>
<tr>
<td>SBA English</td>
<td>4</td>
</tr>
<tr>
<td>Cumulative GPA</td>
<td>2.6 or higher</td>
</tr>
</tbody>
</table>

### 12th Grade ELA course

- ELA 3
- ELA 4
- Expository Writing 1 or 2
- World Literature
- American Literature
- British Literature
- AP English Lang/Comp
- AP English Lit/Comp
- IB Language A1 Eng Standard Lvl Pt1/2
- IB Language A1 Eng Higher Lvl Pt1/2
- IB English A1-Lang & Lit HL-Yr1/2

## Mathematics (any of the following)

<table>
<thead>
<tr>
<th>Test/Subject</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Math</td>
<td>22 or higher</td>
</tr>
<tr>
<td>SAT Math</td>
<td>510 or higher</td>
</tr>
<tr>
<td>SBA Math</td>
<td>3 or 4</td>
</tr>
<tr>
<td>Algebra 2 Course Grade &amp; Cumulative GPA</td>
<td>Alg 2 Grade A or B &amp; Cumulative GPA 2.6 or higher</td>
</tr>
<tr>
<td>Course grade A or B</td>
<td>Intro to Coll Math Grade A or B &amp; SBA Math = 2</td>
</tr>
</tbody>
</table>

### Calculus Pathway Math (beyond Algebra 2) & SBA Math

- Algebra 3
- Trigonometry
- Pre-calculus
- Analytic Geometry
- Calculus
- Calculus 3
- AP Calculus

1.0 credits in calculus pathway math courses with course grade of A or B & SBA Math = 3
Using High School GPA improves completion of College Level English* for Incoming Freshmen

- High School GPA is a solid predictor for college level English completion, when available

* In the first two semesters

** Fall 2016-Spring 2018 cohorts combined
Using High School GPA improves completion of College Level Math* for Incoming Freshmen

* In the first two semesters

- High School GPA is a solid predictor for college level Math completion, when available

% OF STUDENTS, PLACEMENT BY HIGH SCHOOL GPA / ALGEBRA 2 SCORE**

- HSGPA+ALG2 - College Level: 13%
- HSGPA+ALG2 - 1 Level Below: 13%
- HSGPA+ALG2 - 2+ Levels Below: 3%
- No HS GPA/Score: 71%

** Fall 2016-Spring 2018 cohorts combined
High School GPA as a predictor of student success

Previous studies have found that the High School grade point average (GPA) serves as a better predictor of college success than standardized assessment scores.

For Hawaii, we found that High School GPA can predict successful passing of first college-level English/Math:
• 236% better than SAT Reading scores
• 390% better than SAT Math scores
• 307% better than ACT English scores
• 183% better than ACT Math scores;
• 587% better than Accuplacer Essay scores;
• 509% better than Accuplacer Algebra scores.
Why Develop Multiple Math Pathways?

- College Algebra should no longer be viewed as the default gateway math course. Instead, it should be narrowly viewed as a preparatory course for programs that require calculus. Rigorous courses in quantitative reasoning or statistics are more appropriate for students in programs of study that do not require calculus. - Complete College America
Design:
✓ Make it functional.
✓ Make it meaningful.

What do our students need to learn?

How do they learn it most effectively?
How do you know which math pathway fits your program?

- Starting the conversation...

- Arts & Humanities
- Business
- Education
- Social Science
- Health
- STEM
- Career & Applied Tech.
What did Maui do?

- Met with math faculty, assessment representative, program coordinator, advisory board members, student
- Reviewed work from math class in program map which shows highest level of quantitative reasoning
- Is this the type of mathematical reasoning employees in our field need?
Who should be at the table?

- math faculty
- program faculty
- industry reps
- students
Questions to Ask

• Why this class?

• Are students developing skills which align with the needs of graduates from the program?

• Does sample work from students demonstrate skills the industry wants?

• What are common “next steps” for students in the program? Which math class do they require?
Math Pathways

Interest Areas
- Arts & Humanities
- Social Sciences
- Health Sciences
- Business/Econ.
- STEM
- Education
- Trades & Industry

Math Track
- Quantitative Reasoning (FS/FQ)
- Algebra & Pre-Calculus
- Math for Elem Teachers I, II
- Technical Math

Gateway Course
- Math 75X
- Math 78 & 100
- Math 100
- Math 115
- Math 82
- Math 88 & 103
- Math 103
- Math 135
- Math 111, 112
- Math 50, 150
UHMC Math Course Pathways

Diagram Key:
- Developmental Math Course
- College Math/CTE Pathway (Terminal Courses)
- College Algebra Pathways (aka STEM)
- Next Course in the Pathway
- Diagonal/Lateral Move

Placement

Math 82 (4 Cr)

Math 103 (3 Cr)

Math 100 (3 Cr)

Math 103 + 88 (5 Cr)

Math 203 (3 Cr)

Math 119 [ECET/ENGT] (4 Cr)

Math 243 (3 Cr)

Math 135 (3 Cr)

Math 241 (4 Cr)

Math 140 (3 Cr)

Open Entry

Math 75X (4 Cr)

Math 111 (3 Cr)

Math 115 (3 Cr)

Math 115 + 78 (4 Cr)

Math 119 [ECET/ENGT] (4 Cr)

Math 242 (4 Cr)

Math 112 (3 Cr)

Math 244 (3 Cr)

Math 111 (3 Cr)

Math 115 (3 Cr)

Math 82 (4 Cr)

Math 103 (3 Cr)

Math 103 + 88 (5 Cr)

Math 203 (3 Cr)

Math 119 [ECET/ENGT] (4 Cr)

Math 243 (3 Cr)

Math 135 (3 Cr)

Math 241 (4 Cr)

Math 140 (3 Cr)

Open Entry

Math 75X (4 Cr)

Math 111 (3 Cr)

Math 115 (3 Cr)

Math 115 + 78 (4 Cr)

Math 119 [ECET/ENGT] (4 Cr)

Math 242 (4 Cr)

Math 112 (3 Cr)

Math 244 (3 Cr)
Fall 2011 – 2017 trend towards college-level math completion, credentials earned

**Fall 2011**
- 77% students enrolled in remedial math class (doesn’t count for degree) (32% pass rate)
- 23% enrolled in a college-level math class (68% pass rate)
- 27.6% of entering UH Maui students eventually earned a degree or certificate

**Fall 2017**
- 25% students enrolled in remedial math class (doesn’t count for degree) (62% pass rate)
- 75% enrolled in a college-level math class (67% pass rate)
- 74.2% of entering UH Maui students eventually earned a degree or certificate
Fall 2011 – 2017 trend towards college-level math completion at UH Maui College

**Fall 2011:** 15.6% of all math takers earned college math credit

**Fall 2017:** 50.3% of math attempters earned college math credit

![Graph showing percentage of Math attempts & completion by credit type]

- **2011:**
  - Remedial Math Course (Does not count for degree): 24.6% Pass, 52.4% DWF
  - College Math Course: 7.4% Pass, 15.6% DWF

- **2017:**
  - Remedial Math Course (Does not count for degree): 15.8% Pass, 24.7% DWF
  - College Math Course: 9.2% Pass, 50.3% DWF
English Courses Background
(Prior to Fall 2016 at Honolulu CC)

Old Developmental English Sequence

ENG 9 → ENG 8
ENG 19 → ENG 18
ENG 22 → ENG 21
ENG 100

Semester 1
Semester 2
Semester 3
Semester 4
English Courses Now (Honolulu CC)

Prior to Fall 2016

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester</th>
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<tbody>
<tr>
<td>ENG 9</td>
<td>Semester 1</td>
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<td>ENG 8</td>
<td>Semester 2</td>
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<td>ENG 19</td>
<td>Semester 3</td>
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<td>ENG 18</td>
<td>Semester 4</td>
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<td>ENG 22</td>
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<tr>
<td>ENG 21</td>
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</table>

Now

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester</th>
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</thead>
<tbody>
<tr>
<td>ENG 100</td>
<td></td>
</tr>
</tbody>
</table>

All students, any level, can complete college-level English in one semester
ENGLISH MODEL FALL 2016

**ENG 100 + 1 CREDIT**  (TE credits = 6)
Students will attend class for four days a week, each class lasting one hour and fifteen minutes, or a total of six hours per week, essentially double the amount of class for traditional ENG 100 without a co-requisite. Students will pay for only four credits for this class.

**ENG 100 + 2 CREDITS**  (TE credits = 6)
Students will attend class for four days a week, each class lasting one hour and fifteen minutes, or a total of six hours per week, essentially double the amount of class for traditional ENG 100 without a co-requisite. Students will pay for only five credits for this class.

Instructors decide on the make up of the class. Instruction covers all four days.

*success rates for ENG 100 + 1 and ENG 100 + 2 will be configured separately from ENG 100 (3 credits)*
HONCC - ENGLISH CO-REQUISITE RESULTS FALL 2016
(first semester after eliminating developmental English)

- ENG 100/100S: 64%
- ENG 22 + ENG 100: 35%
- ENG 100/100T: 60%
- ENG 19 + ENG 22 + ENG 100: 25%

Fall 2013~Fall 2016
- Fall 2016 only
- Fall 2013~Fall 2016
HonCC - ENG 100/100S Students Passing Subsequent Writing Intensive 200-Level Courses

**FALL 2016**: 86%

**SPRING 2017**: 91%

**FALL 2017**: 70%

**SPRING 2018**: 100%

Total grades:
- Fall 2016: 37
- Spring 2017: 10
- Fall 2017: 11
- Spring 2018: 2
HonCC - ENG 100/100T Students Passing Subsequent Writing Intensive 200-Level Courses

Total grades
- Fall 2016 – 22
- Spring 2017 – 8
- Fall 2017 – 4
- Spring 2018 – 1

FALL 2016: 75%
SPRING 2017: 64%
FALL 2017: 100%
SPRING 2018: 63%
Reasons for Success

- More class time, more interaction is key
- Embedded tutors, provide non-threatening peer help
- Laptops are available for active classroom work
- Co-requisite instructors are experienced teaching regular ENG 100 classes as well
- Focus is on ENG 100 requirements, no developmental English
Retention Results

- Co-requisites allow students to take 200-level courses or any other with an ENG 100 prerequisite
- First semester completion shows higher retention than if completed in one year
## HonCC – Retention by course level of students initially enrolling and completing English

<table>
<thead>
<tr>
<th></th>
<th>Retention 1&lt;sup&gt;st&lt;/sup&gt; semester after</th>
<th>Retention after 2&lt;sup&gt;nd&lt;/sup&gt; semester</th>
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<tbody>
<tr>
<td><strong>College level</strong></td>
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<tr>
<td>Cohort 2016-17</td>
<td>91%</td>
<td>74%</td>
</tr>
<tr>
<td>Cohort 2017-18</td>
<td>91%</td>
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</tr>
<tr>
<td><strong>ENG 100/100S &amp; ENG 100/100T</strong></td>
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<td></td>
</tr>
<tr>
<td>Cohort 2016-17</td>
<td>93%</td>
<td>70%</td>
</tr>
<tr>
<td>Cohort 2017-18</td>
<td>95%</td>
<td>-</td>
</tr>
<tr>
<td><strong>Did not enroll or complete</strong></td>
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<td></td>
</tr>
<tr>
<td>Cohort 2016-17</td>
<td>54%</td>
<td>36%</td>
</tr>
<tr>
<td>Cohort 2017-18</td>
<td>54%</td>
<td>-</td>
</tr>
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Discussion, Questions

What is First-Year English & Math Redesign? And why is it important?

How do we assess and place incoming college students?

What is the "best" math pathway for new students to take? How do we implement curricular redesign to scale?

How can we assess English Redesign outcomes?
If co-requisites reduce student completion of college-level English from as many as four semesters to one... How do students do in higher-level courses after completing English 100?

What do we think is working? Where are we struggling? Where are we headed?

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Fall 2011 – 2017 trend towards college-level math completion at UH Maui College

MATH CLASS TAKING BY CREDIT TYPE AND PASS/DID NOT PASS

- Passed College-level
- Did not pass college-level class
- Passed remedial class
- Did not pass remedial class

FALL 2011
- 52 students
- 25 students
- 7 students
- 16 students

FALL 2017
- 9 students
- 16 students
- 25 students
- 50 students
Placement & Levels of supports needed to succeed

- Course Structures for
  - College Level (English 100)
  - Supplemental (English 100 + Co-requisite Class)
  - Developmental (Fundamentals, English as Second Language, No floor)

### Placement in ENG 100

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Score</th>
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<tbody>
<tr>
<td>CMPW (COMPASS Writing)</td>
<td>74-99</td>
</tr>
<tr>
<td>AWP (Accuplacer Essay)</td>
<td>5 or higher</td>
</tr>
<tr>
<td>SBEA (Smarter Bal Eng Achi Level)</td>
<td>4</td>
</tr>
<tr>
<td>CHSG (Cumulative HS GPA)</td>
<td>2.60-5.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>12EN (12th Grade English Course)</td>
<td>3-4*</td>
</tr>
<tr>
<td>A01 (ACT English)</td>
<td>18-36</td>
</tr>
<tr>
<td>SATW (SAT Writing pre 3/2016)</td>
<td>510-800</td>
</tr>
<tr>
<td>S11 (SAT EVID-BASE RD/WRT &gt;3/2016)</td>
<td>480-800</td>
</tr>
<tr>
<td>HSLA (HISET Language Arts - Writing)</td>
<td>170-200</td>
</tr>
<tr>
<td>GEOL (GED Reasoning Through LangArts)</td>
<td>18-36</td>
</tr>
<tr>
<td>SA1 (Self-Reported ACT English)</td>
<td>18-36</td>
</tr>
<tr>
<td>SS2A (Self-Reported SAT Writing pre 3/2016)</td>
<td>510-800</td>
</tr>
<tr>
<td>SS11 (Self Rept SAT E-B Read/Writing &gt;3/2016)</td>
<td>480-800</td>
</tr>
</tbody>
</table>

*Grade score where 4=A, 3=B, 2=C, 1=D

### Placement in ENG 100 (ENG 100 + ENG 98)

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Score</th>
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<tbody>
<tr>
<td>CMPW (COMPASS Writing)</td>
<td>40-73</td>
</tr>
<tr>
<td>CMPR (COMPASS Reading)</td>
<td>79-99</td>
</tr>
<tr>
<td>AWP (Accuplacer Essay)</td>
<td>4 or higher</td>
</tr>
<tr>
<td>CHSG (Cumulative HS GPA)</td>
<td>2.00-5.00</td>
</tr>
<tr>
<td>12EN (12th Grade English Course)</td>
<td>2-4*</td>
</tr>
<tr>
<td>A01 (ACT English)</td>
<td>11-36</td>
</tr>
<tr>
<td>SATW (SAT Writing pre 3/2016)</td>
<td>310-800</td>
</tr>
<tr>
<td>SA1 (Self-Reported ACT English)</td>
<td>11-36</td>
</tr>
<tr>
<td>SS2A (Self-Reported SAT Writing pre 3/2016)</td>
<td>11-36</td>
</tr>
</tbody>
</table>

### Placement in ESOL 90

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESR (COMPASS ESL Reading)</td>
<td>0-60</td>
</tr>
<tr>
<td>AER (Accuplacer ESL Reading)</td>
<td>20-57</td>
</tr>
<tr>
<td>ESOL (ESOL Human Evaluation) - Writing Sample</td>
<td>090</td>
</tr>
</tbody>
</table>

### Placement in ESOL 92

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESR (COMPASS ESL Reading)</td>
<td>61-99</td>
</tr>
<tr>
<td>AER (Accuplacer ESL Reading)</td>
<td>58-99</td>
</tr>
<tr>
<td>ESOL (ESOL Human Evaluation) - Writing Sample</td>
<td>092</td>
</tr>
</tbody>
</table>

### Placement in ESOL 94

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>AER (Accuplacer ESL Reading)</td>
<td>100-120</td>
</tr>
<tr>
<td>ESOL (ESOL Human Evaluation) - Writing Sample</td>
<td>094</td>
</tr>
</tbody>
</table>

### Placement in ESL 100

OVERRIDES FOR ESL 100 MUST BE ENTERED INTO SFASRPO. NO TEST SCORE AND VALUE CURRENTLY SET UP FOR ESL 100.

NOTE: ALL STUDENTS TAKING THE ESL READING PLACEMENT ALSO TAKE THE WRITING SAMPLE (WRITTEN ESSAY) TEST. AN ESOL INSTRUCTOR WILL REVIEW THE STUDENT'S WRITING SAMPLE TEST TO DETERMINE FINAL PLACEMENT INTO ESOL 90, 92, 94, OR ESL 100.
Placement & Levels of supports needed to succeed

- Course Structures for
  - College Level (College Algebra)
  - Supplemental (College Algebra + Co-requisite Class)
  - Developmental (Fundamentals, No floor)

<table>
<thead>
<tr>
<th>Course</th>
<th>Placement methods</th>
<th>ARIT 250-285 OR QAS 231-249</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 75X Intro to Math. Reasoning</td>
<td>No Placement Score Needed</td>
<td>-</td>
</tr>
<tr>
<td>MATH 82X Expanded Algebraic Foundations</td>
<td>ACCUPLACER</td>
<td>-</td>
</tr>
<tr>
<td>MATH 100 Survey of Mathematics</td>
<td>ACCUPLACER</td>
<td>QAS 250-290 OR AAF 231-300</td>
</tr>
<tr>
<td>MATH 111 Math for Elem. Teachers I or MATH 115 Intro to Statistics and Probability Smarter Balanced Assessment</td>
<td>3 OR 2 and B in either Algebra 1 or 2</td>
<td></td>
</tr>
<tr>
<td>ACT Math</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>SAT Math</td>
<td>530</td>
<td></td>
</tr>
<tr>
<td>GED Mathematical Reasoning</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>HiSet College Ready</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>MATH 103 College Algebra</td>
<td>ACCUPLACER</td>
<td>QAS 276-290 OR AAF 231-257 OR QAS 250-275 and take MATH 88 concurrently</td>
</tr>
<tr>
<td>High School GPA</td>
<td>2.6 and B in Algebra 2 OR 2.6 and B in Algebra 1 and take MATH 88 concurrently</td>
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</tr>
<tr>
<td>Smarter Balanced Assessment</td>
<td>4 OR 3 and B in calculus path course</td>
<td></td>
</tr>
<tr>
<td>ACT Math</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>SAT Math</td>
<td>530</td>
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<tr>
<td>GED Mathematical Reasoning</td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>HiSet College Ready</td>
<td>15</td>
<td></td>
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</table>