



## ***Two Reports Examining Transfer Student Experience Both In and Out of the Classroom***

### **I. Transfer Student Satisfaction with Educational, Co-Curricular and Social Experience at UC Merced**

This paper examines the UC Merced transfer student experience outside the classroom. It relies on responses to the *UC Undergraduate Experience Survey* (UCUES) and its AAU version, the *Student Experience in the Research University* (SERU), conducted in the spring of 2014<sup>1</sup>. This survey will be referred to by its University of California name, UCUES. UCUES is a valuable source of comparative information about the undergraduate experience because it is comprehensive, includes all undergraduates, and is conducted uniformly across the UC campuses and fourteen other major research universities.

The following results describe the responses of upper-division undergraduate students (i.e., junior standing or above) and compares those who matriculated as new high school undergraduates (Native) with those who transferred with prior college experience (Transfer). In addition to these restrictions, comparisons will begin with an examination of factor scores, or scale scores, and move to individual questionnaire items if necessary.

A factor score recognizes that minor variations in item wording or structure can have unintended effects, that a specific item is just one of many possible items designed to address a similar concept, and that a score reflecting the extent to which a group of items measures the underlying concept is more valid and reliable than responses to individual items. For example, overall student experience is measured on UCUES as satisfaction with overall UC GPA, social experience, academic experience, and value of education; as well as agreement that students felt that they belonged and would make the same enrollment decision if the opportunity again presented itself. Each of these items is a measure of overall satisfaction but they are not the only items that could have been used to measure satisfaction, and their wording and response options could be different. A satisfaction factor score can be computed in a manner that weights responses to individual items based on the extent to which each item is associated with the underlying concept of satisfaction. The factor score is a better, more reliable and more valid measure than responses to individual items. Unfortunately, higher education too often takes

<sup>1</sup> Participants included Florida, Michigan, Minnesota, Oregon, Pittsburgh, Rutgers, Texas, USC, North Carolina, Virginia, Texas A&M, Iowa, Purdue and Washington.

a pollster approach to survey data and focuses on responses to individual items. The UCUES factor solution was established about 2005 and has been replicated several times as minor changes are made to the instrument. There are eight principal factors (see Table 1) in the common core of the survey questionnaire and all eight will be considered.

Upper-division UC Merced transfer student scores on the eight principal factors measured by the UCUES common core were compared to those of native UC Merced upper-division students (Table 1), to transfers at other UC campuses (Table 2), and to transfers at AAU institutions (Table 3). In addition, the factor scores of transfers at other UC campuses were compared to those of transfers at AAU institutions (Table 4) to determine whether there were systematic UC transfer differences. Throughout, an important difference will be defined as a mean difference that was at least 10% of the standard deviation, or  $0.10 ((\text{mean of group A} - \text{mean of group B}) / \text{larger group standard deviation})$ . That is a more conservative standard than statistical significance when dealing with large groups. (A rule of thumb about the importance of effect size differences is that: a 0.10 difference is small, a 0.30 difference is medium strong, and a 0.50 or larger difference is strong.)

**Table 1:**

When UC Merced transfers were compared to UC Merced natives, four of the eight comparisons showed important differences (effect size  $> 0.10$ ) and two of those were at least moderately strong effects. Three of the differences were positive for transfer students: transfer students rated current skills higher, were more engaged with studies and exhibited disengagement behaviors less often. One difference was negative for transfer students. They rated change in skills while at UC Merced lower than native students. However, the change in skills rating was misleading because students were indicating change while at UC Merced and transfer students, by definition, were at UC Merced a much shorter time than native UC Merced upper-division students. In sum, the undergraduate experience of UC Merced transfer students was as good as or better than that of native UC Merced students.

**Table 2:**

When responses by UC Merced transfer students were compared to those of transfers at other UC campuses, there were six areas of important difference and all differences were positive for UC Merced. The UC Merced transfer experience was rated higher in current skill level, academic engagement, change in skill level, and campus climate for diversity. UC Merced transfers were less likely to exhibit behaviors associated with disengagement and were more likely to have been involved in research activities. In sum, the undergraduate experience of UC Merced transfer students was better than that of transfers at other UC campuses.

**Table 3:**

UC Merced transfers were compared to transfers at SERU institutions in Table 3. UC Merced transfers responded more positively in four of five important differences. (It should be noted that the vast majority of UC transfers enter after completing lower-division requirements. Upper-division standing is not required at most other national universities.) UC Merced transfers rated current skills higher, were more engaged in studies, reported greater change in skill levels, and were less likely to exhibit disengagement behaviors. The one comparison that was a negative for UC Merced was satisfaction with the educational experience. That was also true for other UC transfers as shown in the next table. In sum,

the undergraduate experience of UC Merced transfer students was generally as good as or better than that of transfers at SERU institutions.

**Table 4:**

Table 4 reports comparisons between UC campus transfer students (excluding UC Merced) and SERU transfer students. In five of the eight areas, comparisons favored SERU transfers over other (not UC Merced) UC transfers. There was no area that favored UC transfers. Other UC transfers were less satisfied, rated current skill levels lower, were less engaged in studies, reported less change in skill levels, and UC transfers were more likely to exhibit behaviors indicating academic disengagement. In sum, the Office of the President should try to determine why the undergraduate experience of other UC transfers (excluding UC Merced) was worse than for transfers at SERU institutions in most areas.

**Conclusion**

In conclusion, based on analyses of the latest UCUES survey, the UC Merced transfer student experience was as good as or better than that of UC Merced native students, transfers at other UC campuses, and transfers at SERU institutions. Given that the UC Merced transfer student experience has been so successful, it is remarkable that transfer students constitute such a small part of the UC Merced undergraduate population.

All Comparisons are Based on the 2011 SERU/UCUES Factor Scores Computed for the 2014 SERU/UCUES Survey Administration and are Limited to Upper-Division Students

Table 1: Upper-Division UC Merced Transfers vs. Native Upper-Division UC Merced Students

	N	Mean	Standard Deviation*	Other UCM	As Effect Size**	
f_1	85	4.75	4.72	2.01	0.04	Factor 1: Satisfaction with educational experience
f_2	135	5.54	5.13	2.07	0.41	<b>Factor 2: Current skills assessment</b>
f_3	144	6.05	5.54	2.00	0.50	<b>Factor 3: Engagement with studies</b>
f_4	133	5.02	6.16	2.35	-1.14	<b>Factor 4: Change skills assessment</b>
f_5	134	5.30	5.41	1.93	-0.12	Factor 5: Development of scholarship
f_6	142	5.13	5.15	1.85	-0.01	Factor 6: Campus climate for diversity
f_7	138	4.36	5.06	2.11	-0.70	<b>Factor 7: Academic disengagement ***</b>
f_8	136	5.29	5.45	2.17	-0.16	Factor 8: Research activity

Table 2: UC Merced Transfers vs. Transfers at Other UC Campuses

	N	Mean	Standard Deviation	UCM - Other UC	As Effect Size	
f_1	85	4.75	4.83	2.16	-0.08	Factor 1: Satisfaction with educational experience
f_2	135	5.54	5.00	2.23	0.54	<b>Factor 2: Current skills assessment</b>
f_3	144	6.05	5.16	2.17	0.89	<b>Factor 3: Engagement with studies</b>
f_4	133	5.02	4.52	1.92	0.50	<b>Factor 4: Change skills assessment</b>
f_5	134	5.30	5.23	2.07	0.06	Factor 5: Development of scholarship
f_6	142	5.13	4.81	2.18	0.32	<b>Factor 6: Campus climate for diversity</b>
f_7	138	4.36	4.81	2.22	-0.45	<b>Factor 7: Academic disengagement ***</b>
f_8	136	5.29	5.07	2.07	0.22	Factor 8: Research activity

Table 3: UC Merced Transfers vs. Transfers at SERU Campuses

	N	Mean	Standard Deviation	UCM - SERU	As Effect Size	
f_1	85	4.75	5.22	2.08	-0.47	Factor 1: Satisfaction with educational experience
f_2	135	5.54	5.32	1.90	0.22	<b>Factor 2: Current skills assessment</b>
f_3	144	6.05	5.43	1.98	0.62	<b>Factor 3: Engagement with studies</b>
f_4	133	5.02	4.76	1.96	0.25	<b>Factor 4: Change skills assessment</b>
f_5	134	5.30	5.10	2.02	0.20	<b>Factor 5: Development of scholarship</b>
f_6	142	5.13	4.97	2.05	0.17	Factor 6: Campus climate for diversity
f_7	138	4.36	4.47	1.95	-0.11	Factor 7: Academic disengagement ***
f_8	136	5.29	5.11	2.16	0.17	Factor 8: Research activity

Table 4: Other UC Campus Transfers vs. SERU Campus Transfers

	Mean	Mean	Standard Deviation	Other UC - SERU	As Effect Size	
f_1	4.83	5.22	2.08	-0.39	-0.19	Factor 1: Satisfaction with educational experience
f_2	5.00	5.32	1.90	-0.32	-0.17	<b>Factor 2: Current skills assessment</b>
f_3	5.16	5.43	1.98	-0.28	-0.14	<b>Factor 3: Engagement with studies</b>
f_4	4.52	4.76	1.96	-0.24	-0.12	<b>Factor 4: Change skills assessment</b>
f_5	5.23	5.10	2.02	0.13	0.07	Factor 5: Development of scholarship
f_6	4.81	4.97	2.05	-0.16	-0.08	Factor 6: Campus climate for diversity
f_7	4.81	4.47	1.95	0.34	0.17	<b>Factor 7: Academic disengagement ***</b>
f_8	5.07	5.11	2.16	-0.05	-0.02	Factor 8: Research activity

\* The standard deviation from the larger group was used to compute the effect size.

\*\* A 0.10 difference is small. A 0.30 difference is medium. A 0.50 or larger difference is strong.

\*\*\* A higher academic disengagement score indicates more frequent nonacademic behaviors, partying for example. A higher score is undesirable or negative.

## II. Are Transfer Students Academically Prepared for UC Merced?

This report is a straightforward comparison of transfer students in their first semester of attendance with students who began as new from high school freshmen (native students) taking the same courses. The comparison is average grade earned in the same courses from fall, 2009 to spring, 2014. When that comparison between new transfer students and native UCM students includes all courses with 9 or more transfers, there were 72 upper-division courses, two-thirds, and 36 lower-division courses, one-third.

In the large majority of cases, 72% or 77 instances, there was no significant difference in performance between transfers and native students. In the 31 instances where there were differences, transfer students performed better 26 times and worse 5 times.

In the 26 instances where transfer students performed better than native students, 12 were upper-division and 14 were lower-division. There were no cases where transfer students performed worse than native students in a lower-division course. If anything, initial placements were likely on the conservative side but were generally very accurate as reflected in equivalent academic performance between transfers and natives.

The five instances where transfer students performed worse than native students were all upper-division courses. Two were writing courses and there were one each in anthropology, history and sociology:

1. WRI 116: Science Writing in Natural Sciences
2. WRI 105: Grammar and Style
3. ANTH 151: Human Adaptability
4. HIST 123: Comparative Race and Ethnicity in the United States
5. SOC 185: Topics in Sociology

Table 1 arrays the 108 courses based on performance difference between transfer and native students. Table 2 arranges the same information by course subject area.

### ***Discussion***

The academic preparation of transfer students is frequently assumed to be less than or weaker than that of native students, but data seldom if ever support that conventional wisdom. Analysis of performance records nearly always concludes that transfer students perform as well as native students taking the same classes. That has been the result at UC Merced in the past, at other UC campuses, and is the result of this study. While there were cases where transfer students perform less well, they were few in number. In general, the curriculum and instructional processes of courses where transfer students performed worse should be considered for spurious hindrances and higher level course placements should be considered for those courses where transfer students performed better.

Perhaps a more interesting study topic would be why the conventional wisdom is that transfer students are less well prepared in spite of an extensive body of research concluding the opposite. Is it parochial bias, a remnant of the California Master Plan's suggestion that community college students are

academically inferior, or perhaps inappropriate attribution to community college preparation when a faculty member advises a struggling transfer student?

**Table 1: Comparing Course Grades of Transfer Students in Their First UC Merced Courses with the Grades of Students Who Began as UC Merced Freshmen**

	Number of Transfer Students	Significance	Transfer Mean	Native Mean	Difference (Transfer- Native)	Course Level
ANTH151	19	<b>0.0070</b>	<b>1.91</b>	<b>2.81</b>	<b>-0.90</b>	Lower
WRI 116	15	<b>0.0007</b>	<b>2.33</b>	<b>3.10</b>	<b>-0.77</b>	Lower
SOC 185	13	<b>0.0102</b>	<b>2.56</b>	<b>3.19</b>	<b>-0.62</b>	Lower
HIST123	12	<b>0.0493</b>	<b>2.25</b>	<b>2.82</b>	<b>-0.58</b>	Lower
WRI 105	9	<b>0.0345</b>	<b>2.51</b>	<b>3.06</b>	<b>-0.55</b>	Lower
PSY 015	83	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
MGMT191	69	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ENGR155	62	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
CHEM008	56	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 171	48	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
MATH005	47	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ENGR130	40	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 190	38	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ENGR045	32	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 181	32	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PHYS009	31	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ARTS130	30	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI120	29	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PHYS008	28	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
MGMT180	26	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH100	24	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PH 125	24	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ECON100	23	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 130	23	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 151	23	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
MATH011	22	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH160	20	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH162	20	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
BIO 002L	20	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH190	19	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ARTS150	19	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
CHEM010	19	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
HIST100	19	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower

	Number of Transfer Students	Significance	Transfer Mean	Native Mean	Difference (Transfer-Native)	Course Level
<b>ANTH150</b>	<b>18</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>CSE 005</b>	<b>18</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>CSE 030</b>	<b>18</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>MATH131</b>	<b>18</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>GASP151</b>	<b>17</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>MATH021</b>	<b>17</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>MATH023</b>	<b>17</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>MGMT120</b>	<b>17</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>HIST139</b>	<b>16</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>MATH022</b>	<b>16</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>POLI102</b>	<b>16</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH110</b>	<b>15</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH134</b>	<b>15</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH144</b>	<b>15</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>CHEM002</b>	<b>15</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>POLI010</b>	<b>15</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>PSY 138</b>	<b>15</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>PSY 140</b>	<b>15</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ENGR180</b>	<b>14</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>PHYS110</b>	<b>14</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH124</b>	<b>13</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>PSY 124</b>	<b>13</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH126</b>	<b>12</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH172</b>	<b>12</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>HIST118</b>	<b>12</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>NSED120</b>	<b>12</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>PH 100</b>	<b>12</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>POLI003</b>	<b>12</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>BIO 101</b>	<b>11</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ENGR065</b>	<b>11</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>POLI001</b>	<b>11</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>PSY 131</b>	<b>11</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH140</b>	<b>10</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH169</b>	<b>10</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ME 137</b>	<b>10</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>SOC 001</b>	<b>10</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>ANTH148</b>	<b>9</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>BIO 140</b>	<b>9</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>
<b>CHEM100L</b>	<b>9</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Upper</b>
<b>COGS175</b>	<b>9</b>	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	<b>Lower</b>

	Number of Transfer Students	Significance	Transfer Mean	Native Mean	Difference (Transfer- Native)	Course Level
ECON001	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
GEOG142	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
HIST010	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
HIST158	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
LIT 100	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PHIL134	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI100	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI142	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 183	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
CSE 020	46	<b>0.0471</b>	<b>2.95</b>	<b>2.66</b>	<b>0.30</b>	Lower
BIO 001L	73	<b>0.0035</b>	<b>3.75</b>	<b>3.43</b>	<b>0.32</b>	Lower
COGS001	47	<b>0.0092</b>	<b>3.17</b>	<b>2.85</b>	<b>0.32</b>	Lower
COGS180	55	<b>0.0291</b>	<b>2.51</b>	<b>2.17</b>	<b>0.34</b>	Lower
MATH024	44	<b>0.0215</b>	<b>2.73</b>	<b>2.35</b>	<b>0.39</b>	Lower
PSY 147	22	<b>0.0415</b>	<b>3.31</b>	<b>2.91</b>	<b>0.40</b>	Lower
PSY 143	29	<b>0.0133</b>	<b>3.27</b>	<b>2.87</b>	<b>0.41</b>	Lower
PSY 142	16	<b>0.0446</b>	<b>3.29</b>	<b>2.87</b>	<b>0.42</b>	Lower
MATH015	18	<b>0.0532</b>	<b>3.42</b>	<b>2.99</b>	<b>0.44</b>	Lower
BIO 001	129	<b>0.0001</b>	<b>2.94</b>	<b>2.46</b>	<b>0.48</b>	Lower
MATH032	68	<b>0.0004</b>	<b>2.92</b>	<b>2.42</b>	<b>0.50</b>	Lower
ENGR057	87	<b>0.0001</b>	<b>2.41</b>	<b>1.90</b>	<b>0.51</b>	Lower
COGS128	15	<b>0.0311</b>	<b>3.33</b>	<b>2.82</b>	<b>0.51</b>	Lower
PSY 159	10	<b>0.0138</b>	<b>3.70</b>	<b>3.12</b>	<b>0.58</b>	Lower
PHYS018	31	<b>0.0001</b>	<b>3.02</b>	<b>2.43</b>	<b>0.59</b>	Lower
WRI 100	13	<b>0.0050</b>	<b>3.69</b>	<b>3.03</b>	<b>0.66</b>	Lower
PSY 001	12	<b>0.0241</b>	<b>3.14</b>	<b>2.44</b>	<b>0.69</b>	Lower
BIO 002	29	<b>0.0005</b>	<b>2.74</b>	<b>2.04</b>	<b>0.71</b>	Lower
CHEM100	17	<b>0.0137</b>	<b>2.91</b>	<b>2.17</b>	<b>0.74</b>	Lower
MATH018	9	<b>0.0147</b>	<b>3.70</b>	<b>2.93</b>	<b>0.77</b>	Lower
ANTH005	15	<b>0.0032</b>	<b>3.13</b>	<b>2.35</b>	<b>0.78</b>	Lower
ANTH142	9	<b>0.0535</b>	<b>3.58</b>	<b>2.80</b>	<b>0.78</b>	Lower
PSY 123	14	<b>0.0002</b>	<b>3.82</b>	<b>2.94</b>	<b>0.88</b>	Lower
MATH012	10	<b>0.0236</b>	<b>3.03</b>	<b>2.14</b>	<b>0.88</b>	Lower
COGS105	10	<b>0.0053</b>	<b>3.98</b>	<b>3.05</b>	<b>0.93</b>	Lower
ARTS100	12	<b>0.0007</b>	<b>3.32</b>	<b>2.26</b>	<b>1.06</b>	Lower

**Table 2: Comparing by Subject Area the Course Grades of Transfer Students in Their First UC Merced Courses with the Grades of Students Who Began as UC Merced Freshmen**

Number of Transfer Students	Significance	Transfer Mean	Native Mean	Difference (Transfer-Native)	Course Level
ANTH005	15	<b>0.0032</b>	<b>3.13</b>	<b>2.35</b>	<b>0.78</b>
ANTH100	24	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH110	15	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH124	13	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH126	12	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH134	15	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH140	10	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH142	9	<b>0.0535</b>	<b>3.58</b>	<b>2.80</b>	<b>0.78</b>
ANTH144	15	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH148	9	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH150	18	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH151	19	<b>0.0070</b>	<b>1.91</b>	<b>2.81</b>	<b>-0.90</b>
ANTH160	20	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH162	20	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH169	10	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH172	12	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ANTH190	19	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ARTS100	12	<b>0.0007</b>	<b>3.32</b>	<b>2.26</b>	<b>1.06</b>
ARTS130	30	No sig. diff.	No sig. diff.	No sig. diff.	Lower
ARTS150	19	No sig. diff.	No sig. diff.	No sig. diff.	Lower
BIO 001	129	<b>0.0001</b>	<b>2.94</b>	<b>2.46</b>	<b>0.48</b>
BIO 001L	73	<b>0.0035</b>	<b>3.75</b>	<b>3.43</b>	<b>0.32</b>
BIO 002	29	<b>0.0005</b>	<b>2.74</b>	<b>2.04</b>	<b>0.71</b>
BIO 002L	20	No sig. diff.	No sig. diff.	No sig. diff.	Lab
BIO 101	11	No sig. diff.	No sig. diff.	No sig. diff.	Lower
BIO 140	9	No sig. diff.	No sig. diff.	No sig. diff.	Lower
CHEM002	15	No sig. diff.	No sig. diff.	No sig. diff.	Lower
CHEM008	56	No sig. diff.	No sig. diff.	No sig. diff.	Lower
CHEM010	19	No sig. diff.	No sig. diff.	No sig. diff.	Lower
CHEM100	17	<b>0.0137</b>	<b>2.91</b>	<b>2.17</b>	<b>0.74</b>
CHEM100L	9	No sig. diff.	No sig. diff.	No sig. diff.	Lab
COGS001	47	<b>0.0092</b>	<b>3.17</b>	<b>2.85</b>	<b>0.32</b>
COGS105	10	<b>0.0053</b>	<b>3.98</b>	<b>3.05</b>	<b>0.93</b>
COGS128	15	<b>0.0311</b>	<b>3.33</b>	<b>2.82</b>	<b>0.51</b>
COGS175	9	No sig. diff.	No sig. diff.	No sig. diff.	Lower
COGS180	55	<b>0.0291</b>	<b>2.51</b>	<b>2.17</b>	<b>0.34</b>

Number of Transfer Students	Significance	Transfer Mean	Native Mean	Difference (Transfer-Native)	Course Level
CSE 005	18	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
CSE 020	46	<b>0.0471</b>	<b>2.95</b>	<b>2.66</b>	<b>0.30</b> Lower
CSE 030	18	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
ECON001	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
ECON100	23	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
ENGR045	32	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
ENGR057	87	<b>0.0001</b>	<b>2.41</b>	<b>1.90</b>	<b>0.51</b> Lower
ENGR065	11	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
ENGR130	40	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
ENGR155	62	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
ENGR180	14	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
GASP151	17	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
GEOG142	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
HIST010	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
HIST100	19	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
HIST118	12	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
HIST123	12	<b>0.0493</b>	<b>2.25</b>	<b>2.82</b>	<b>-0.58</b> Lower
HIST139	16	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
HIST158	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
LIT 100	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MATH005	47	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MATH011	22	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MATH012	10	<b>0.0236</b>	<b>3.03</b>	<b>2.14</b>	<b>0.88</b> Lower
MATH015	18	<b>0.0532</b>	<b>3.42</b>	<b>2.99</b>	<b>0.44</b> Lower
MATH018	9	<b>0.0147</b>	<b>3.70</b>	<b>2.93</b>	<b>0.77</b> Lower
MATH021	17	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MATH022	16	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MATH023	17	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MATH024	44	<b>0.0215</b>	<b>2.73</b>	<b>2.35</b>	<b>0.39</b> Lower
MATH032	68	<b>0.0004</b>	<b>2.92</b>	<b>2.42</b>	<b>0.50</b> Lower
MATH131	18	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
ME 137	10	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MGMT120	17	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MGMT180	26	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
MGMT191	69	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
NSED120	12	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
PH 100	12	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
PH 125	24	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
PHIL134	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower
PHYS008	28	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff. Lower

	Number of Transfer Students	Significance	Transfer Mean	Native Mean	Difference (Transfer-Native)	Course Level
PHYS009	31	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PHYS018	31	<b>0.0001</b>	<b>3.02</b>	<b>2.43</b>	<b>0.59</b>	Lower
PHYS110	14	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI001	11	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI003	12	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI010	15	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI100	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI102	16	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI120	29	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
POLI142	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 001	12	<b>0.0241</b>	<b>3.14</b>	<b>2.44</b>	<b>0.69</b>	Lower
PSY 015	83	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 123	14	<b>0.0002</b>	<b>3.82</b>	<b>2.94</b>	<b>0.88</b>	Lower
PSY 124	13	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 130	23	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 131	11	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 138	15	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 140	15	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 142	16	<b>0.0446</b>	<b>3.29</b>	<b>2.87</b>	<b>0.42</b>	Lower
PSY 143	29	<b>0.0133</b>	<b>3.27</b>	<b>2.87</b>	<b>0.41</b>	Lower
PSY 147	22	<b>0.0415</b>	<b>3.31</b>	<b>2.91</b>	<b>0.40</b>	Lower
PSY 151	23	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 159	10	<b>0.0138</b>	<b>3.70</b>	<b>3.12</b>	<b>0.58</b>	Lower
PSY 171	48	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 181	32	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 183	9	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
PSY 190	38	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
SOC 001	10	No sig. diff.	No sig. diff.	No sig. diff.	No sig. diff.	Lower
SOC 185	13	<b>0.0102</b>	<b>2.56</b>	<b>3.19</b>	<b>-0.62</b>	Lower
WRI 100	13	<b>0.0050</b>	<b>3.69</b>	<b>3.03</b>	<b>0.66</b>	Lower
WRI 105	9	<b>0.0345</b>	<b>2.51</b>	<b>3.06</b>	<b>-0.55</b>	Lower
WRI 116	15	<b>0.0007</b>	<b>2.33</b>	<b>3.10</b>	<b>-0.77</b>	Lower