



Research Brief

Women in Science, Technology, Engineering & Mathematics Programs at Crafton Hills College

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Purpose of Brief

This brief analyzes the participation of women in Crafton's STEM programs.

Summary of Findings

- In general STEM courses, 45.3% of women earned a grade on record between 2009-2010 and 2013-2014.
- The percentage of women earning a grade on record in a STEM-directed course increased from 9.5% in 2009-2010 to 14.7% in 2013-2014.
- In 2013-2014, 12.5% of women who earned a degree did so in a STEM field.
- The number of women earning a STEM degree increased from 7 women (2.8%) in 2009-2010 to 40 women (12.5%) in 2013-2014.
- More women earned a STEM degree (110 women) between 2009-2010 and 2013-2014 than men (95 men).
- Women constituted one-third of the participants in one of the two Title III HSI STEM grant programs.

Overview

In 2014, Crafton Hills College joined the Redlands Branch of the American Association of University Women (UUAW) and is partnering with UUAW on the Spring 2015 STEM Conference. This brief analyzes the participation of women in Crafton Hills College's science, technology, engineering, and mathematics (STEM) programs.

Methodology

Historical performance data was collected from the Ellucian Colleague student information system. STEM courses were identified if they were in a STEM field; STEM-directed courses were identified as those which were lower division major preparation in a STEM field. STEM degrees were identified if they were in a STEM field. STEM Trek and STEM Academy students were identified by their formal participation in one of the Title III HSI STEM grant programs. Students were identified as earning a grade on record (GOR) by earning a grade of A, B, C, D, F, I, W, CR, NC, P, or NP in the course.

Findings

Tables 1 and 1a indicate the number of women and men who earned a GOR in a STEM course. In general STEM courses, 45.3% of women earned a GOR over the last five academic years (2009-2010 to 2013-2014). Comparatively, 45.5% of men earned a GOR in a STEM course over the same period. Notably, the percentage of women earning a GOR in STEM courses increased from 35% in 2009-2010 to 42% in 2013-2014.

Table 1. Students earning a GOR in STEM courses by gender.

Gender and Course Type		#	%
Female	STEM Course	5,067	45.3
	Non-STEM Course	6,110	54.7
Male	STEM Course	4,791	45.5
	Non-STEM Course	5,728	54.5

Table 1a. Students earning a GOR in STEM courses by gender and academic year.

Gender and Course Type		Academic Year									
		2009-2010		2010-2011		2011-2012		2012-2013		2013-2014	
		#	%	#	%	#	%	#	%	#	%
Female	STEM Course	1,600	35.0	1,657	37.0	1,423	36.9	1,392	38.4	1,646	42.0
	Non-STEM Course	2,972	65.0	2,826	63.0	2,437	63.1	2,232	61.6	2,273	58.0
Male	STEM Course	1,549	35.8	1,591	37.9	1,400	37.7	1,375	40.2	1,517	42.3
	Non-STEM Course	2,781	64.2	2,604	62.1	2,309	62.3	2,042	59.8	2,073	57.7

Tables 2 and 2a indicate the number of women and men who earned a GOR in a STEM-directed course. In STEM-directed courses, 17.6% of women earned a GOR over the last five academic years. Comparatively, 22.5% of men earned a GOR in a STEM-directed course over the same period. Notably, the percentage of women earning a GOR in STEM-directed courses increased from 9.5% in 2009-2010 to 14.7% in 2013-2014.

Table 2. Students earning a GOR in STEM-directed courses by gender.

Gender and Course Type		#	%
Female	STEM-Directed Course	1,970	17.6
	Non-STEM-Directed Course	9,207	82.4
Male	STEM-Directed Course	2,367	22.5
	Non-STEM-Directed Course	8,152	77.5

Table 2a. Students earning a GOR in STEM-directed courses by gender and academic year.

Gender and Course Type		Academic Year									
		2009-2010		2010-2011		2011-2012		2012-2013		2013-2014	
		#	%	#	%	#	%	#	%	#	%
Female	STEM-Directed Course	434	9.5	510	11.4	547	14.2	541	14.9	575	14.7
	Non-STEM-Directed Course	4,138	90.5	3,973	88.6	3,313	85.8	3,083	85.1	3,344	85.3
Male	STEM-Directed Course	591	13.6	698	16.6	717	19.3	723	21.2	736	20.5
	Non-STEM-Directed Course	3,739	86.4	3,497	83.4	2,992	80.7	2,694	78.8	2,854	79.5

Table 3 illustrates the number of degrees awarded to women and men between 2009-2010 and 2013-2014. In 2013-2014, 12.5% of women earned a degree in a STEM field, whereas less than 10% of men earned a STEM degree in the same year. The number of women earning a STEM degree increased from 7 (2.8%) in 2009-2010 to 40 (12.5%) in 2013-2014. Also, more women earned a STEM degree (110) over the last five years than men (95).

Table 3. Students earning a degree in a STEM field by gender and academic year.

Gender and Degree Type		Academic Year									
		2009-2010		2010-2011		2011-2012		2012-2013		2013-2014	
		#	%	#	%	#	%	#	%	#	%
Female	Earned STEM Degree	7	2.8	21	7.6	14	5.8	28	10.4	40	12.5
	Earned Non-STEM Degree	243	97.2	254	92.4	228	94.2	242	89.6	280	87.5
Male	Earned STEM Degree	11	3.9	12	4.4	12	4.2	28	8.9	32	9.8
	Earned Non-STEM Degree	273	96.1	260	95.6	273	95.8	287	91.1	295	90.2

Table 4 indicates the participation rate of STEM Trek and STEM Academy students in Spring 2014 by gender. Women constituted one-third of the participants in one of the two Title III HSI STEM grant programs.

Table 4. Spring 2014 STEM Trek/Academy students by gender.

Gender	#	%
Female	31	33.3%
Male	62	66.7%