Assessment of General Education Goal 6.1
Results of the December 2012 Assessment
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General Education Goal 6: Demonstrate the ability to evaluate and apply information technology.
Outcome 1: Student will be able to utilize current computer software.

A total of 131 student artifacts (a collection of three computer files) were collected and scored from CSC 106 courses for the GEG 6.1 assessment. There were also 127 demographic sheets collected with the artifacts. Each artifact was scored by a team consisting of two faculty readers. Each faculty reader scored the artifacts independently, and then a final consensus rating was given. The artifacts were scored according to the attached rubrics on the following components: *Word Processing (WP): Enter/Edit, WP: Basic Formatting, WP: Advanced Functions, WP: Special Elements; Spreadsheets (SS): Enter/Edit/Format, SS: Create Simple Formulas, SS: Use Functions, SS: Create Chart and Elements; PowerPoint (PP): Create Presentation, PP: Add Enhancements, and PP: Apply Transitions/Animations.*

The tables below (Tables 1, 2, and 3) display the student scores– the percentage represents the percentage of students that received that score. The mean scores for all components were above the *Acceptable* rating with more students scoring *Excellent* than *Developing*. The PowerPoint components of the artifacts had considerably higher scores than the word processing and spreadsheet components, and had very few artifacts with a *Developing* score.

Table 1: Word Processing (WP) Student Scores

	Enter/Edit	*Basic Formatting*	*Advanced Format*	*Special Elements*
1 (Developing)	30%	9%	7%	15%
2 (Acceptable)	40%	31%	21%	41%
3 (Excellent)	31%	60%	73%	44%
Mean	2.01	2.50	2.66	2.30

Table 2: Spreadsheets (SS) Student Scores

	Enter/Edit/Format	Create Simple Formula	Use Functions	Create Charts and Elements
1 (Developing)	22%	12%	25%	25%
2 (Acceptable)	35%	20%	26%	9%
3 (Excellent)	43%	68%	49%	66%
Mean	2.21	2.55	2.23	2.42

Table 3: PowerPoint (PP) Student Scores

	Create Presentation	Add Enhancements	Apply Transitions /Animations
1 (Developing)	2%	2%	12%
2 (Acceptable)	16%	31%	38%
3 (Excellent)	82%	66%	50%
Mean	2.81	2.64	2.39

As a way to measure the reliability of the assessment, inter-rater reliability data was measured and is displayed in Tables 4, 5, and 6 below. The measure compares how often the two faculty readers scored an artifact the same (Agree), had a difference in score by 1 (Differ by 1), or had a difference in score by 2 (Differ by 2). All components had reliability ratings that should be considered acceptable with the exception of the *WP: Enter/Edit* component (65% agreement). This may indicate that the rubric and/or the training need to be improved.

Table 4: Inter-Rater Reliability, Word Processing, n=131

	Enter/Edit	Basic Formatting	Advanced Format	Special Elements
Agree	65%	79%	86%	76%
Differ by 1	31%	17%	14%	24%
Differ by 2	4%	5%	1%	1%

Table 5: Inter-Rater Reliability, Spreadsheets, n=131

	Enter/Edit/Format	*Create Simple Formula*	*Use Functions*	*Create Charts and Elements*
Agree	79%	82%	83%	89%
Differ by 1	21%	18%	15%	9%
Differ by 2	1%	1%	2%	2%

Table 6: Inter-Rater Reliability, PowerPoint, n=131

	Create Presentation	*Add Enhancements*	*Apply Transitions /Animations*
Agree	83%	78%	76%
Differ by 1	15%	22%	21%
Differ by 2	2%	0%	2%

An analysis was done to examine scoring differences among the different categories of the variables collected from the demographic sheet (see Tables 7, 8, and 9 below). The data show the different distributions of the various demographic factors that were collected. Also included are the mean scores for each of the different categories. Note that just because the mean scores may be different in the sample, it may not be true of the population (most results aren't statistically significant). The following results represent the statistically significant findings.

Table 7: Demographics (Word Processing)

Variable	Category	n	Enter/ Edit Mean	Basic Formatting Mean	Advanced Format Mean	Special Elements Mean
Semester at JWCC	1st	63	1.98	2.44*	2.67	2.24
	2nd	13	2.08	2.54*	2.69	2.46
	3rd	39	2.05	2.69*	2.77	2.38
	4th	5	2.00	1.80*	2.00	2.20
	5th or more	7	2.00	2.71*	2.86	2.57
Program Type	AA	22	2.32	2.73	2.86	2.36
	AS	28	2.18	2.54	2.57	2.39
	AFA	0	NA	NA	NA	NA
	AGS	0	NA	NA	NA	NA
	AAS	13	1.77	2.54	2.77	2.31
	Certificate	3	1.67	2.33	2.33	2.00
	Don't Know/Other	59	1.90	2.44	2.66	2.29
FT/PT Status	Part-time	24	2.05	2.56	2.65	2.31
	Full-time	103	1.88	2.33	2.83	2.38
Age	16 and under	0	NA	NA	NA	NA
	17 to 20	79	2.05	2.49	2.68	2.23
	21 to 24	16	1.94	2.50	2.56	2.44
	25 to 29	8	1.63	2.50	2.75	2.25
	30 or older	24	2.08	2.63	2.75	2.58
Gender	Female	65	2.12	2.62	2.75	2.45*
	Male	62	1.90	2.42	2.61	2.19*
Delivery Method	Structured	55	1.91	2.49	2.75	2.20
	OLC	25	2.28	2.68	2.72	2.56
	Online	28	1.96	2.57	2.57	2.29
	Other/Don't Know	19	2.05	2.31	2.63	2.42
Total Earned Hours	None (0)	35	1.89	2.43	2.60	2.26
	1 to 14.5	28	2.04	2.39	2.71	2.25
	15 to 29.5	30	2.13	2.70	2.80	2.33
	30 to 44.5	21	2.10	2.38	2.57	2.33
	45 to 59.5	8	2.00	2.88	2.75	2.63
	60 or more	5	1.80	2.80	2.80	2.60
Transfer Student	Yes	16	1.88	2.50	2.69	2.06
	No	109	2.04	2.52	2.69	2.38

*p < .05

Table 8: Demographics (Spreadsheets)

Variable	Category	n	Enter/Edit/Format Mean	Create Simple Formula Mean	Use Functions Mean	Create Charts and Elements Mean
Semester at JWCC	1st	63	2.33	2.63	2.33	2.46
	2nd	13	1.92	2.54	2.38	2.08
	3rd	39	2.00	2.46	2.08	2.51
	4th	5	2.00	2.20	1.60	1.80
	5th or more	7	2.71	2.86	2.29	2.71
Program Type	AA	22	1.86	2.55	2.23	2.32
	AS	28	2.21	2.50	2.18	2.54
	AFA	0	NA	NA	NA	NA
	AGS	0	NA	NA	NA	NA
	AAS	13	2.15	2.62	2.31	2.31
	Certificate	3	2.33	2.33	1.67	3.00
	Don't Know/Other	59	2.31	2.59	2.25	2.42
FT/PT Status	Part-time	24	2.20	2.59	2.24	2.41
	Full-time	103	2.17	2.46	2.17	2.50
Age	16 and under	0	NA	NA	NA	NA
	17 to 20	79	2.14	2.54	2.13	2.42
	21 to 24	16	2.00	2.56	2.25	2.50
	25 to 29	8	2.63	2.75	2.50	2.50
	30 or older	24	2.38	2.58	2.46	2.38
Gender	Female	65	2.22	2.65	2.32	2.62*
	Male	62	2.18	2.48	2.13	2.23*
Delivery Method	Structured	55	2.22	2.60	2.29	2.44
	OLC	25	2.12	2.72	2.56	2.12
	Online	28	2.21	2.46	1.96	2.46
	Other/Don't Know	19	2.21	2.42	2.00	2.73
Total Earned Hours	None (0)	35	2.06	2.49	2.17	2.46
	1 to 14.5	28	2.36	2.50	2.39	2.54
	15 to 29.5	30	2.20	2.73	2.13	2.37
	30 to 44.5	21	2.00	2.52	2.24	2.38
	45 to 59.5	8	2.50	2.38	2.16	2.38
	60 or more	5	2.60	3.00	2.40	2.20
Transfer Student	Yes	16	2.31	2.69	2.25	2.25
	No	109	2.17	2.54	2.24	2.44

*p < .05

Table 9: Demographics (PowerPoint)

Variable	Category	n	Create Presentation	Add Enhancements	Apply Transitions /Animations
Semester at JWCC	1st	63	2.76	2.63	2.49*
	2nd	13	2.92	2.69	2.69*
	3rd	39	2.85	2.62	2.26*
	4th	5	2.60	2.80	1.80*
	5th or more	7	2.86	2.71	2.00*
Program Type	AA	22	2.91	2.59	2.36
	AS	28	2.89	2.79	2.32
	AFA	0	NA	NA	NA
	AGS	0	NA	NA	NA
	AAS	13	2.85	2.69	2.62
	Certificate	3	2.67	2.67	3.00
	Don't Know/Other	59	2.73	2.59	2.36
FT/PT Status	Part-time	24	2.83	2.64	2.40
	Full-time	103	2.67	2.67	2.33
Age	16 and under	0	2.81	2.62	2.42
	17 to 20	79	2.81	2.81	2.31
	21 to 24	16	2.75	2.50	2.13
	25 to 29	8	2.79	2.67	2.42
	30 or older	24	2.80	2.65	2.39
Gender	Female	65	2.88	2.69	2.45
	Male	62	2.73	2.60	2.32
Delivery Method	Structured	55	2.75	2.58	2.45
	OLC	25	2.88	2.72	2.44
	Online	28	2.89	2.72	2.29
	Other/Don't Know	19	2.74	2.63	2.27
Total Earned Hours	None (0)	35	2.77	2.57	2.46
	1 to 14.5	28	2.75	2.61	2.43
	15 to 29.5	30	2.93	2.63	2.40
	30 to 44.5	21	2.71	2.81	2.29
	45 to 59.5	8	2.75	2.50	2.13
	60 or more	5	3.00	3.00	2.40
Transfer Student	Yes	16	2.81	2.81	2.44
	No	109	2.80	2.64	2.38

*p < .05

JOHN WOOD COMMUNITY COLLEGE
General Education Assessment

**Learning Outcome 6.1: The student will be able to utilize current computer software –
word processing software**

	1 Developing	2 Acceptable	3 Excellent
Enter and edit text: spelling, grammar, punctuation, wordwrap	Enter text – wordwrap not used, more than one spelling, grammar or punctuation errors	Enter text – one or less spelling, grammar or punctuation error; wordwrap used	Enter text – no spelling, grammar or punctuation errors; wordwrap used correctly
Basic Formatting: fonts, margins, alignments	Incorrect use of alignment, margins, and fonts (margins too narrow or wide, fonts distract from message)	One of the following missing: change margins; text alignment; select appropriate font	Change margins; text alignment; select appropriate fonts
Advanced Formatting: bullets, apply styles	No bulleted or numbered list and no styles applied or incorrectly applied	One of the following missing: bulleted or numbered list; apply styles	Create bulleted or numbered list; apply styles consistently
Special Elements: table, visual elements (images, clip art, SmartArt) header and/or footer & citations	No table, visual elements, header and/or footer and citations or more than one incorrectly used	One of the following missing or one or less errors: Create table; visual element; header and/or footer; citations	Create table; insert visual elements, sized and positioned correctly; header and/or footer; citations

**Learning Outcome 6.1: The student will be able to utilize current computer software –
spreadsheet software**

	1 Developing	2 Acceptable	3 Excellent
Enter, edit and format: values and labels; apply formatting (bold, italic, currency); change alignment	Enter data correctly; no attempt to apply formatting and change alignment or applied/changed incorrectly	Enter data correctly; one or less errors with the following: apply formatting, change alignment.	Enter data correctly; formatting applied correctly; alignment changed
Create simple formulas (containing only one mathematical operator)	No use of formulas	Create simple formula with correct calculation and mathematical operator but cell references missing	Create simple formula with correct calculation and mathematical operator and correct cell references
Use functions	No functions used or used incorrectly or range incorrect	Missing one of the following commonly used functions: SUM, AVG, MIN, MAX	Correct use of all of the following functions: SUM, AVG, MIN, MAX
Create chart and add elements (title, legend, data labels)	Incorrect range	Correct range; missing one of the following elements: chart title, legend, data labels)	Correct range and contains all of the following elements: chart title, legend, data labels

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Learning Outcome 6.1: The student will be able to utilize current computer software – presentation graphics

	1 Developing	2 Acceptable	3 Excellent
Create basic presentation	Add slides, add text to slides; missing variety of slide layouts and theme	Add slides, add text to slides; missing one of the following: use variety of slide layouts; use appropriate theme	Add slides, add text to slides; use variety of slide layouts; apply appropriate theme
Add enhancements: visual elements (photographs, clip art, SmartArt, shapes), header and footer	One or no visual element used	More than one visual element used; minor errors with size and position;	Visual elements on multiple slides, correctly sized and positioned;
Apply transitions and/or animations	No transitions or animations	Multiple types of transitions and/or animations overused that distract from content comprehension	Use appropriate number and types of transitions and/or animations