

# IRP@FHDA

**To:** Judy Baker, PhD, Dean of Foothill College Global Access  
**From:** Lourdes Del Rio-Parent, PhD, Sr. Research Analyst/Data Warehouse  
Coordinator FHDA  
**Date:** May 26 of 2015  
**Re:** Estimating the Percentage for Distance Education Courses and Units by  
Program: Methodology & Results

This report describes methods and procedures to estimate the percentage of distance education courses and units by program (degree and certificates) at Foothill College for the current and previous academic years. A key objective of this report is to describe the procedures used to develop a script or SQL query to easily compute these percentages and document related changes across time, a task that when performed manually can take a significant amount of time and be more likely to data entry errors. These procedures are meant to help evaluation efforts, in particular those related to accreditation,<sup>1</sup> in which institutions need to identify (a) programs with 50% or more of their courses offered through distance education courses; and, (b) significant changes to the mode of delivery of courses within these programs across academic years, which have resulted in having at least 50% of their units now available through distance education. Sections in this report include (a) methodology, (b) procedures, (c) results, and (d) discussion. In the methodology section of this report, main challenges involved in calculating these percentages are discussed followed by proposed methods on how to address these. The procedures section provides specific details on the steps followed to identify programs for the analysis and calculate percentages for distance education based on units or courses, approved by the curriculum or offered in the class schedule. The results section

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<sup>1</sup> "Institutions are expected to provide the Commission advanced notice of intent to offer a program, degree or certificate in which 50% or more of the courses are via distance education or correspondence education, through the substantive change process. For purposes of this requirement, the institution is responsible for calculating the percentage of courses that may be offered through distance or correspondence education". (*Guide to Evaluating Distance Education and Correspondence Education*, p. 32, June 2013).

identifies percentages for distance education courses and units, including changes in mode of delivery for the last four years for all selected programs. The discussion section provides a brief summary of findings or opinions related to distance education offerings at Foothill College.

### **Methodology**

The main challenge when estimating the number or percentage of DE (distance education) courses within programs is that students are seldom given a definite set of courses to meet all program requirements. The opposite; most programs have at least one group of restrictive electives or options students can choose from to meet either course or unit requirements (i.e., combination of required or restrictive elective courses within a program). Another challenge is how to weight courses during procedures for they can be required, elective, or part of an option (which could include both required and elective courses). The implication is that the role of the course (e.g., requirement or elective) will impact the degree to which a program can be classified as DE. For example, a program classified as 100% DE must have all required courses offered as DE, but just a minimum of restrictive elective courses offered as DE. If we try to divide the number all courses applicable to a program by number in the set that are offered through DE, this will likely underestimate percentage figures and fail to detect programs for which all course requirements (require and elective courses) could be available through DE.

To better estimate the extent to which a program is offered through DE, the methodology presented here separates required from electives courses within each program. Required courses are analyzed individually and have a direct impact in the final estimate; for a program to be 100% DE, all required courses must have at least one section offered through DE. Because elective courses are always part of a group (a defined set of courses to meet a given requirement), these are analyzed within their group. This means that the number of elective courses or units within the set offered as DE is compared against the minimum required for the group; thus, not all elective courses need to be offered as DE for a program to be 100% DE, just meet the minimum number of required courses.

Programs with options are analyzed separately; percentage figures are computed separately for each option as it was a separate program. Exhibit 1 provides an example of how the percentage for DE courses was calculated for a program without options, and Exhibit 2 shows the example for a program with options. Exhibit 1 shows courses grouped by their function or group (required versus elective), the total number of courses within the group, the minimum number of courses to meet requirements, and the number of courses with at least one DE offering/section. The number for *DE Offered Courses* is always set to be equal or less than the *Min Number for Requirement* for the group (to avoid inflating final estimate). Percentage figures for the program are calculated by dividing the total number for *Min Number for Requirement* by the total number by *DE Offered Courses*. Exhibit 2 shows similar procedures for a program with options; however, percentages figures are calculated for each option within the program.

Exhibit 1  
Calculating the Percent of DE Courses for a Program without Options

Course Group	All Courses	Min Number for Requirement	DE Offered Courses
<b>Required</b>	<b>5</b>	5	5
<b>Restrictive Elective Courses Group 1</b>	<b>6</b>	2	2
<b>Restrictive Elective Courses Group 2</b>	<b>4</b>	2	2
<b>Total</b>		9	9
<b>Percent</b>			100%

Notes:

DE (Distance Education) Offered Courses: At least one section of the course was offered through a distance education delivery mode. It does not include hybrid (mixed methods) sections. This number is set to be less or equal to 'Min Number for Requirement.'

Exhibit 2  
Calculating the Percent of DE Courses for a Program, Option 1

Course Group	All Courses	Min Number Meet Requirement	DE Offered Courses
<b>Required</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Required within Option 1</b>	<b>3</b>	<b>3</b>	<b>2</b>
<b>Alternative/Restrictive Elective Courses within Option 1</b>	<b>4</b>	<b>2</b>	<b>1</b>
<b>Total</b>		<b>10</b>	<b>8</b>
<b>Percent</b>			<b>80%</b>

Notes:

DE (Distance Education) Offered Courses: At least one section of the course was offered through a distance education delivery mode. It does not include hybrid (mixed methods) sections. This number is set to be less or equal to 'Min Number for Requirement.'

**Procedures**

A total of 90 (see Appendix A) programs were included in the analysis for these met the following criteria: (a) approved by the CCCCO Curriculum Inventory,<sup>2</sup> (b) were active for the 2014-15 academic year at Foothill College, and (c) had a defined number of course or unit requirements, including a number of restrictive course electives or options, as documented on the college website.<sup>3</sup> Using information from the Degree Works<sup>4</sup> database and the College website, courses pertaining to the major for each program were identified and grouped based on their function or role in meeting program requirements: required, restrictive elective, or part of an option.

<sup>2</sup> California Community Colleges Chancellor's Office Curriculum Inventory, <http://curriculum.cccco.edu/>

<sup>3</sup> The CCCCO Curriculum Inventory showed 104 programs at Foothill College for the 2014-15 academic year (72 degrees, 29 credit certificates, and 3 non-credit certificates). Of these 104, 100 were identified as active credit programs at the College (i.e., program top and unique codes were used to link curriculum inventory data to Banner-information system data). Of these 100 programs, 10 were excluded because either the program was not in the college website (*General Electrician Certificate*) or had multiple selection of courses, which made the program not suitable for this analysis (*Humanities AA*, *CSU-General Education Breadth Certificate*, *IGETC-UC*, *IGETC-CSU*, *General Studies/Social Science AA*, *Economics for Transfer AA*, *Geographic Information Systems Analyst Certificate*, *Political Science for Transfer AA*, and *Kinesiology for Transfer AA*).

<sup>4</sup> Ellucian, degree audit system

Within options, courses were classified as required or elective. For every group of electives, the minimum number of courses and units to meet requirements for the group was identified. Honor, equivalent, or crosswalks courses were excluded from the analysis to avoid overestimating or underestimating percentage figures. The analysis also took into account whether the programs provided options (i.e., a selection of groups of required or elective course to meet requirements for the program). For programs with options, each option was analyzed individually—treated as a separate program.

Validated course data was linked to data from the District's information system to identify (a) courses approved for DE (distance education)<sup>5</sup> at Foothill College for the 2014-15 academic year, and (b) courses with at least with one section<sup>6</sup> offered through DE, as documented by the class schedule for the last two academic years (2013-14, 2014-15). SQL scripts were used to calculate number of courses and units required for each program approved for DE, and offered or scheduled as DE, after taking into account course grouping within the program (e.g., required courses and restrictive electives within groups), as shown in Exhibit 1 and 2. Class schedule data (course offerings) for the 2013-14 and 2014-15 academic years was compared to data for 2011-12 to 2012-13 to identify programs that reached the 50% or higher mark in DE course offerings in the last two academic years, which could signal significant changes in the delivery mode for these programs. Results based on the number of courses and units were compared as a way to cross validate results.

## Results

1. *How many programs are currently approved and offered as DE (distance education) at Foothill College?*

Figures in Appendix B (based on number of courses) and Appendix C (based on units) show that minimum course or unit requirements for 19 programs (4 certificates and 15 degrees, including six degrees for transfer) have been approved and offered 100% through DE at Foothill College in the last two academic years--about 21% (19 out of 90). All of these were programs

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<sup>5</sup> Instruction or schedule mode code beginning with 5, 6, or 7.

<sup>6</sup> It includes sections with enrollment greater than zero.

without options. For programs with at least 50% of their courses and units approved and offered as DE, figures in Appendix A and B show 40 programs, while figures in Appendix D to Appendix G (programs with options) show 6 more programs with at least one option. This makes a total of 46 programs, or about 50% of the programs analyzed.

2. *What programs may have experienced changes that have resulted in at least 50% of their units or course to be available as DE?*

Figures on Appendix H, which compare percentages for DE based on courses and units for programs within the last four years, may show some significant changes in a few programs (e.g., *Physical Education* and *English*). However, after close review of the data, these differences are mainly due to changes in course ID (i.e., the new ID for physical education course subject, PHED, which does not show in the schedule for prior years<sup>7</sup>), or the fact that these are new programs, degrees for transfer—some but not all courses may have been offered in the past. Thus, no major changes in the delivery mode for these programs were detected.

## **Discussion**

The percentage of distance education courses or units within a program (degree or certificates) can be efficiently estimated by grouping courses based on their function (e.g., required, elective, optional) and evaluating related minimum requirements (i.e., minimum units or courses by group). The procedures discussed here can also help track more efficiently changes to instructional programs across time, in specific those related to changes in instructional methods or modes delivery. Although resource intensive during the initial stages (e.g., checking catalog information and grouping courses by their function), once the databases are developed and validated, SQL procedures can be used to easily compute figures and analyze the information. The only key limitations are: (a) programs with a great deal of flexibility (e.g., students are allowed to choose courses within or across groups of restrictive electives) would need to be excluded from the analysis and evaluated separately; and, (b) the time series analyses should be performed at the program level (keep track of data at the

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<sup>7</sup> Because we are now keeping track of the results at the program level, future analysis will not be impacted by changes in course IDs.

program level) to avoid errors of interpretation due to changes in course ID or the approval of new programs.

Specific to findings for Foothill College, the data suggest that the College has a significant commitment to distance education for about 22% (19 out of 90<sup>8</sup>) of the programs reviewed here met minimum requirements to qualify as 100% DE (distance education). However, nowhere it is stated that students can count on these programs to be available 100% DE in future years. Maybe the time has come for the College to make an official commitment and offer versions of these programs 100% DE. This could include providing templates for these programs in Degree Works (degree audit system), so that interested students can develop their education plan. After all, finding the extent to which a program is offered DE can be a rather complex task.

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<sup>8</sup> A total of 90 includes: programs with no options, 76; programs with at least one option, 14.

**Appendix A**

**Foothill College Degrees and Certificates, Active and Approved by the CCCC Curriculum Inventory, 2014-15**

<b>Program Title</b>	<b>Award Type</b>	<b>Banner Code</b>	<b>TOP Code</b>	<b>CCCCO Unique Code</b>	<b>Analysis Status</b>
Accounting	AA Degree	FH_AA_1ACC	050200	06014	
Accounting	Certificate	FH_CEA_1ACZ	050200	19477	
Adaptive Fitness Therapy	AA Degree	FH_AA_1AFT	080900	15150	
Adaptive Fitness Therapy	Certificate	FH_CEA_1AFZ	080900	30311	
Advanced GIS	Certificate	FH_CEA_1GI3	220610	15170	N/A
Anthropology	AA Degree	FH_AA_1AN1	220200	06094	
Anthropology	AA-T Degree	FH_AA_1ANT	220200	32417	
Apprenticeship: Sheet Metal Building Trades	AS Degree	FH_AS_1ASM	095640	31970	
Art History	AA-T Degree	FH_AA_1ATT	100100	32772	
Art History	AA Degree	FH_AA_1AHI	100200	06044	
Art History	Certificate	FH_CEA_1AHZ	100200	19484	
Art: General	AA Degree	FH_AA_1ART	100200	06043	
Art: General	Certificate	FH_CEA_1ASZ	100200	20086	
Athletic Injury Care	AS Degree	FH_AS_1PEA	122800	09287	
Biological Sciences	AS Degree	FH_AS_1BIO	040100	06011	
Business Administration	AA Degree	FH_AA_1BUS	050500	06016	
Business Administration	AS-T Degree	FH_AS_1BAT	050500	33002	
Business International Studies	AA Degree	FH_AA_1IBS	050800	06019	
Business International Studies	Certificate	FH_CEA_1IBZ	050800	19478	
Chemistry	AS Degree	FH_AS_1CHE	190500	06087	
Child Development Teacher	AA Degree	FH_AA_1CHD	130500	06092	
Communication Studies	AA Degree	FH_AA_1COS	150600	06077	
Communication Studies	AA-T Degree	FH_AA_1CMT	150600	33005	
Computer Science	AS Degree	FH_AS_1CIS	070600	06027	
Computer Science	AS-T Degree	FH_AS_1CST	070600	32359	
CPA Exam Preparation	Certificate	FH_CEA_1CPA	050200	32555	
CSU General Education-Breadth	Certificate	FH_CEA_1IDC	490110	19159	N/A
Dental Assisting	AS Degree	FH_AS_1DA	124010	06062	



**Appendix A**

<b>Program Title</b>	<b>Award Type</b>	<b>Banner Code</b>	<b>TOP Code</b>	<b>CCCCO Unique Code</b>	<b>Analysis Status</b>
Dental Assisting	Certificate	FH_CEA_1DAZ	124010	19489	
Dental Hygiene	AS Degree	FH_AS_1DH	124020	06063	
Diagnostic Medical Sonography	Certificate	FH_CEA_1DMS	122700	11042	
Diagnostic Medical Sonography	AS Degree	FH_AS_1DIM	122700	30483	
Digital Imaging II	Certificate	FH_CEA_1PD2	101100	15880	
Early Childhood Education	AS-T Degree	FH_AS_1EAT	130500	33034	
Economics	AA Degree	FH_AA_1ECO	220400	06096	
Economics	AA-T Degree	FH_AA_1ECT	220400	33001	N/A
Engineering	AS Degree	FH_AS_1EGN	090100	06033	
English	AA Degree	FH_AA_1ENG	150100	06074	
English	AA-T Degree	FH_AA_1EHT	150100	32281	
Enterprise Networking	AS Degree	FH_AS_1ENT	070810	17612	
Environmental Horticulture & Design	AS Degree	FH_AS_1EHD	010900	09277	
Environmental Horticulture & Design	Certificate	FH_CEA_1EHZ	010900	19476	
Field Ironworkers Apprenticeship	Certificate	FH_CEA_1FIW	095640	11828	
General Electrician	AS Degree	FH_AS_1GEL	095220	17590	
General Electrician	Certificate	FH_CEA_1GEZ	095220	20084	DegW/Web
General Electrician Apprenticeship	Certificate	FH_CEA_1EIW	095220	20085	
General Studies/Social Science	AA Degree	FH_AA_1GSS	220100	06093	N/A
General Studies: Humanities	AA Degree	FH_AA_1GSH	490300	06104	
General Studies: Humanities	AA Degree	FH_AA_1GSH	490300	06104	N/A
General Studies: Science	AS Degree	FH_AS_1GSC	490200	06103	
Geography	AS Degree	FH_AS_1GES	220600	06098	
Geography	AA-T Degree	FH_AA_1GET	220600	32468	
Graphic and Interactive Design	AA Degree	FH_AA_1GID	103000	06051	
Graphic and Interactive Design	Certificate	FH_CEA_1GIZ	103000	20088	
History	AA Degree	FH_AA_1HIS	220500	06097	
History	AA-T Degree	FH_AA_1HIT	220500	32152	
IGETC	Certificate	FH_CEA_1ICU	490110	19160	N/A
IGETC	Certificate	FH_CEA_1IGC	490110	19160	N/A
Japanese	AA Degree	FH_AA_1JAP	110800	06059	

**Appendix A**

<b>Program Title</b>	<b>Award Type</b>	<b>Banner Code</b>	<b>TOP Code</b>	<b>CCCCO Unique Code</b>	<b>Analysis Status</b>
Kinesiology	AA-T Degree	FH_AA_1KIT	127000	32843	N/A
Mathematics	AS Degree	FH_AS_1MAT	170100	06082	
Mathematics	AS-T Degree	FH_AS_1MTT	170100	32127	
Music Technology	AA Degree	FH_AA_1MU1	100500	11058	
Music Technology	Certificate	FH_CEA_1MUZ	100500	20087	
Music Technology Pro Tools	Certificate	FH_CEA_1MPT	100500	06046	
Music: General	AA Degree	FH_AA_1MU4	100400	06045	
Nanoscience	AS Degree	FH_AS_1NAS	099900	16980	
Nanoscience	Certificate	FH_CEA_1NAZ	099900	19483	
Paramedic	AS Degree	FH_AS_1PAR	125100	06072	
Paramedic	Certificate	FH_CEA_1PAZ	125100	20091	
Pharmacy Technician	AS Degree	FH_AS_1PT	122100	15549	
Pharmacy Technician	Certificate	FH_CEA_1PTZ	122100	20090	
Philosophy	AA Degree	FH_AA_1PHI	150900	06079	
Philosophy	AA-T Degree	FH_AA_1PIT	150900	32422	
Physical Education	AA Degree	FH_AA_1PE	083500	06031	
Physics	AS Degree	FH_AS_1PHY	190200	06086	
Physics	AS-T Degree	FH_AS_1PCT	190200	32362	
Plumbing/Pipefitting/Pipe Trades Apprenticeship	Certificate	FH_CEA_1PLU	095230	11827	
Political Science	AA Degree	FH_AA_1POL	220700	06099	
Political Science	AA-T Degree	FH_AA_1PST	220700	33033	N/A
Primary Care Associate	AS Degree	FH_AS_1PC	120600	06066	
Primary Care Associate	Certificate	FH_CEA_1PCZ	120600	20089	
Program Supervisor & Mentoring	Certificate	FH_CEA_1CH4	130580	14561	
Psychology	AA Degree	FH_AA_1PSY	200100	06090	
Psychology	AA-T Degree	FH_AA_1PYT	200100	30914	
Radiologic Technology	AS Degree	FH_AS_1RT	122500	06071	
Respiratory Therapy	AS Degree	FH_AS_1RET	121000	06068	
Sheet Metal Apprenticeship	Certificate	FH_CEA_1SBT	095640	11830	
Sociology	AA Degree	FH_AA_1SOC	220800	06100	
Sociology	AA-T Degree	FH_AA_1SOT	220800	30912	

## Appendix A

Program Title	Award Type	Banner Code	TOP Code	CCCCO Unique Code	Analysis Status
Spanish	AA Degree	FH_AA_1SPA	110500	06057	
Spanish	AA-T Degree	FH_AA_1SHT	110500	33003	
Studio Arts	AA-T Degree	FH_AA_1STT	100200	32431	
Theatre Arts	AA Degree	FH_AA_1THA	100700	06047	
Theatre Arts	AA-T Degree	FH_AA_1TAT	100700	33004	
Theatre Technology	AA Degree	FH_AA_1THT	100600	09290	
Theatre Technology	Certificate	FH_CEA_1TTZ	100600	19486	
Traditional Photography	AA Degree	FH_AA_1PHO	101100	06050	
Veterinary Technology	AS Degree	FH_AS_1VT	010210	06009	
Women Studies	AA Degree	FH_AA_1WOM	220110	09293	

### Notes

CCCCO Unique Code is the unique or control code assigned to the program by the California Community Colleges Chancellor's Office (CCCCO) Curriculum Inventory. TOP Code, Taxonomy of Programs, indicates area of study or major.

Analysis Status: DegW/Web, not in Degree Works or web site for degrees and certificates offered at the College. N/A, not applicable to the analysis because of the diversity of choices to meet requirements. No comment, included in the analysis.

The CCCC Curriculum inventory has multiple certificates for General Electrician. The certificate included in this analysis is for Inside Wireman Certificate (FH\_CEA\_1EIW), the certificate in the website, <http://foothill.edu/programs/programs.php>.

The General Art Certificate has the Banner code for Art Survey major.

**Appendix B**

**Programs without Options: Count and Percent Figures for Courses Approved or Offered as Distance Education by Program**

<b>Program Title</b>	<b>Award Type</b>	<b>Total Min Number of Courses</b>	<b>Distance Ed Approved Count</b>	<b>Distance Ed Approved Percent</b>	<b>Distance Ed Offered Count</b>	<b>Distance Ed Offered Percent</b>
Accounting	AA Degree	11	11	100%	11	100%
Accounting	Certificate	9	9	100%	9	100%
CPA Exam Preparation	Certificate	8	8	100%	8	100%
Business Administration	AS-T Degree	8	8	100%	8	100%
Art History	AA-T Degree	7	7	100%	7	100%
Music: General	AA Degree	10	10	100%	10	100%
Music Technology	AA Degree	12	12	100%	12	100%
Music Technology	Certificate	9	9	100%	9	100%
Graphic and Interactive Design	AA Degree	15	15	100%	15	100%
Graphic and Interactive Design	Certificate	15	15	100%	15	100%
Psychology	AA Degree	8	8	100%	8	100%
Psychology	AA-T Degree	6	6	100%	6	100%
Anthropology	AA Degree	9	9	100%	9	100%
Anthropology	AA-T Degree	7	7	100%	7	100%
Economics	AA Degree	8	8	100%	8	100%
History	AA Degree	9	9	100%	9	100%
History	AA-T Degree	8	8	100%	8	100%
Sociology	AA Degree	7	7	100%	7	100%
Sociology	AA-T Degree	8	8	100%	8	100%
Art History	AA Degree	11	11	100%	10	91%
Art History	Certificate	11	11	100%	10	91%
Music Technology Pro Tools	Certificate	9	9	100%	8	89%
Geography	AS Degree	9	8	89%	8	89%
General Studies: Humanities	AA Degree	9	9	100%	8	89%
Digital Imaging II	Certificate	8	8	100%	7	88%
Women Studies	AA Degree	8	7	88%	7	88%
Business International Studies	AA Degree	12	10	83%	10	83%
Business International Studies	Certificate	12	10	83%	10	83%

**Appendix B**

<b>Program Title</b>	<b>Award Type</b>	<b>Total Min Number of Courses</b>	<b>Distance Ed Approved Count</b>	<b>Distance Ed Approved Percent</b>	<b>Distance Ed Offered Count</b>	<b>Distance Ed Offered Percent</b>
Communication Studies	AA Degree	6	6	100%	5	83%
Geography	AA-T Degree	6	6	100%	5	83%
Business Administration	AA Degree	11	11	100%	9	82%
Philosophy	AA Degree	8	6	75%	6	75%
Philosophy	AA-T Degree	7	6	86%	5	71%
General Studies: Science	AS Degree	7	5	71%	5	71%
Traditional Photography	AA Degree	10	9	90%	7	70%
Political Science	AA Degree	10	9	90%	7	70%
Studio Arts	AA-T Degree	16	11	69%	11	69%
English	AA Degree	7	4	57%	4	57%
Early Childhood Education	AS-T Degree	9	5	56%	5	56%
Mathematics	AS-T Degree	6	5	83%	3	50%
Child Development Teacher	AA Degree	13	6	46%	6	46%
Spanish	AA Degree	9	5	56%	4	44%
Adaptive Fitness Therapy	AA Degree	12	7	58%	5	42%
Adaptive Fitness Therapy	Certificate	12	7	58%	5	42%
Theatre Technology	AA Degree	12	8	67%	5	42%
Theatre Technology	Certificate	12	8	67%	5	42%
Program Supervisor & Mentoring	Certificate	16	6	38%	6	38%
Computer Science	AS-T Degree	9	5	56%	3	33%
Nanoscience	Certificate	6	5	83%	2	33%
Paramedic	AS Degree	13	3	23%	3	23%
Paramedic	Certificate	13	3	23%	3	23%
Chemistry	AS Degree	11	2	18%	2	18%
Dental Hygiene	AS Degree	45	11	24%	7	16%
Engineering	AS Degree	13	5	38%	2	15%
Pharmacy Technician	AS Degree	18	3	17%	2	11%
Pharmacy Technician	Certificate	18	3	17%	2	11%
Diagnostic Medical Sonography	Certificate	31	18	58%	3	10%
Diagnostic Medical Sonography	AS Degree	31	18	58%	3	10%

**Appendix B**

<b>Program Title</b>	<b>Award Type</b>	<b>Total Min Number of Courses</b>	<b>Distance Ed Approved Count</b>	<b>Distance Ed Approved Percent</b>	<b>Distance Ed Offered Count</b>	<b>Distance Ed Offered Percent</b>
Dental Assisting	AS Degree	21	3	14%	2	10%
Dental Assisting	Certificate	21	3	14%	2	10%
Radiologic Technology	AS Degree	33	7	21%	3	9%
Theatre Arts	AA Degree	13	2	15%	1	8%
Respiratory Therapy	AS Degree	39	6	15%	3	8%
Athletic Injury Care	AS Degree	13	4	31%	1	8%
Veterinary Technology	AS Degree	38	4	11%	1	3%
Environmental Horticulture & Design	AS Degree	24	0	0%	0	0%
Environmental Horticulture & Design	Certificate	24	0	0%	0	0%
General Electrician	AS Degree	10	0	0%	0	0%
General Electrician Apprenticeship	Certificate	10	0	0%	0	0%
Plumbing/Pipefitting/Pipe Trades Apprenticeship	Certificate	10	0	0%	0	0%
Field Ironworkers Apprenticeship	Certificate	18	0	0%	0	0%
Sheet Metal Apprenticeship	Certificate	37	0	0%	0	0%
Apprenticeship: Sheet Metal Building Trades	AS Degree	37	0	0%	0	0%
Primary Care Associate	AS Degree	28	0	0%	0	0%
Primary Care Associate	Certificate	28	0	0%	0	0%
Japanese	AA Degree	9	0	0%	0	0%

**Notes**

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Only courses applicable to the major were included.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7.

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

Programs previously classified as 100% distance education, missing at least one requirement to reach 100%:

Art History: ART 3 Modern Art, not offered as distance education in the last two academic years.

Women's Studies: PSYC, SOC, or WMN F021 not offered as distance education in the last two academic years.

Humanities: HUMN F004, this required course had not shown in the schedule for the last two years--cancelled.

**Appendix C**

**Programs without Options: Count and Percent Figures for Units Approved or Offered as Distance Education by Program**

<b>Program Title</b>	<b>Award Type</b>	<b>Total Min Number of Units</b>	<b>Distance Ed Approved Count</b>	<b>Distance Ed Approved Percent</b>	<b>Distance Ed Offered Count</b>	<b>Distance Ed Offered Percent</b>
Accounting	AA Degree	53	53	100%	53	100%
Accounting	Certificate	43	43	100%	43	100%
CPA Exam Preparation	Certificate	37	37	100%	37	100%
Business Administration	AS-T Degree	40	40	100%	40	100%
Art History	AA-T Degree	30	30	100%	30	100%
Music: General	AA Degree	47	47	100%	47	100%
Music Technology	AA Degree	47.5	47.5	100%	47.5	100%
Music Technology	Certificate	35.5	35.5	100%	35.5	100%
Graphic and Interactive Design	AA Degree	58	58	100%	58	100%
Graphic and Interactive Design	Certificate	58	58	100%	58	100%
Psychology	AA Degree	35	35	100%	35	100%
Psychology	AA-T Degree	27	27	100%	27	100%
Anthropology	AA Degree	36	36	100%	36	100%
Anthropology	AA-T Degree	27	27	100%	27	100%
Economics	AA Degree	34	34	100%	34	100%
History	AA Degree	36	36	100%	36	100%
History	AA-T Degree	32	32	100%	32	100%
Sociology	AA Degree	30	30	100%	30	100%
Sociology	AA-T Degree	32	32	100%	32	100%
Art History	AA Degree	48	48	100%	43.5	91%
Art History	Certificate	48	48	100%	43.5	91%
Music Technology Pro Tools	Certificate	36	36	100%	32	89%
Geography	AS Degree	37	33	89%	33	89%
General Studies: Humanities	AA Degree	36	36	100%	32	89%
Business International Studies	Certificate	64	56	88%	56	88%
Women Studies	AA Degree	33	29	88%	29	88%
Business International Studies	AA Degree	53	45	85%	45	85%
Digital Imaging II	Certificate	31	30	97%	26	84%
Business Administration	AA Degree	54	54	100%	45	83%

**Appendix C**

<b>Program Title</b>	<b>Award Type</b>	<b>Total Min Number of Units</b>	<b>Distance Ed Approved Count</b>	<b>Distance Ed Approved Percent</b>	<b>Distance Ed Offered Count</b>	<b>Distance Ed Offered Percent</b>
Communication Studies	AA Degree	30	30	100%	25	83%
Geography	AA-T Degree	27	25	93%	21	78%
Philosophy	AA Degree	33	25	76%	25	76%
Philosophy	AA-T Degree	29	26	90%	21	72%
General Studies: Science	AS Degree	32	23	72%	23	72%
Traditional Photography	AA Degree	40	36	90%	28	70%
Political Science	AA Degree	43	39	91%	30	70%
Studio Arts	AA-T Degree	63.5	43.5	69%	43.5	69%
English	AA Degree	29	17	59%	17	59%
Early Childhood Education	AS-T Degree	37	20	54%	20	54%
Mathematics	AS-T Degree	30	25	83%	15	50%
Child Development Teacher	AA Degree	49	23	47%	23	47%
Spanish	AA Degree	40	23	58%	18	45%
Adaptive Fitness Therapy	AA Degree	42	24	57%	18	43%
Adaptive Fitness Therapy	Certificate	42	24	57%	18	43%
Theatre Technology	AA Degree	48	32	67%	20	42%
Theatre Technology	Certificate	48	32	67%	20	42%
Program Supervisor & Mentoring	Certificate	61	23	38%	23	38%
Nanoscience	Certificate	30	25	83%	10	33%
Computer Science	AS-T Degree	47	25	53%	15	32%
Chemistry	AS Degree	60	10	17%	10	17%
Engineering	AS Degree	68	25	37%	10	15%
Dental Hygiene	AS Degree	128.5	29	23%	18	14%
Athletic Injury Care	AS Degree	48	13	27%	4	8%
Theatre Arts	AA Degree	54	8	15%	4	7%
Radiologic Technology	AS Degree	99.5	22	22%	7	7%
Dental Assisting	AS Degree	47	5.5	12%	3.5	7%
Dental Assisting	Certificate	47	5.5	12%	3.5	7%
Respiratory Therapy	AS Degree	108	14.5	13%	7	6%
Paramedic	AS Degree	57	3	5%	3	5%
Paramedic	Certificate	57	3	5%	3	5%



### Appendix C

Program Title	Award Type	Total Min Number of Units	Distance Ed Approved Count	Distance Ed Approved Percent	Distance Ed Offered Count	Distance Ed Offered Percent
Pharmacy Technician	AS Degree	52	3	6%	2	4%
Pharmacy Technician	Certificate	52	3	6%	2	4%
Diagnostic Medical Sonography	Certificate	105.5	37	35%	4	4%
Diagnostic Medical Sonography	AS Degree	105.5	37	35%	4	4%
Veterinary Technology	AS Degree	94.5	15.5	16%	1.5	2%
Environmental Horticulture & Design	AS Degree	66	0	0%	0	0%
Environmental Horticulture & Design	Certificate	66	0	0%	0	0%
General Electrician	AS Degree	35	0	0%	0	0%
General Electrician Apprenticeship	Certificate	35	0	0%	0	0%
Plumbing/Pipefitting/Pipe Trades Apprenticeship	Certificate	42.5	0	0%	0	0%
Field Ironworkers Apprenticeship	Certificate	37	0	0%	0	0%
Sheet Metal Apprenticeship	Certificate	55.5	0	0%	0	0%
Apprenticeship: Sheet Metal Building Trades	AS Degree	55.5	0	0%	0	0%
Primary Care Associate	AS Degree	103.5	0	0%	0	0%
Primary Care Associate	Certificate	103.5	0	0%	0	0%
Japanese	AA Degree	40	0	0%	0	0%

#### Notes

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7).

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

Programs previously classified as 100% distance education, missing at least one requirement to reach 100%:

Art History: ART 3 Modern Art, not offered as distance education in the last two academic years.

Women's Studies: PSYC, SOC, or WMN F021 not offered as distance education in the last two academic years.

Humanities: HUMN F004, this required course had not shown in the schedule for the last two years--cancelled.

## Appendix D

### Programs with Option 1: Count and Percent Figures for Courses Approved or Offered as Distance Education by Program

Program Title	Award Type	Total Min Number of Courses	Distance Ed Approved Count	Distance Ed Approved Percent	Distance Ed Offered Count	Distance Ed Offered Percent
Computer Science	AS Degree	12	11	92%	9	75%
Art: General	Certificate	9	6	67%	6	67%
Art: General	AA Degree	9	6	67%	6	67%
English	AA-T Degree	7	4	57%	4	57%
Physical Education	AA Degree	9	6	67%	5	56%
Communication Studies	AA-T Degree	6	3	50%	3	50%
Spanish	AA-T Degree	7	4	57%	3	43%
Nanoscience	AS Degree	10	8	80%	4	40%
Physics	AS-T Degree	8	4	50%	2	25%
Mathematics	AS Degree	9	9	100%	2	22%
Theatre Arts	AA-T Degree	7	1	14%	1	14%
Enterprise Networking	AS Degree	11	11	100%	1	9%
Physics	AS Degree	11	5	45%	1	9%
Biological Sciences	AS Degree	9	0	0%	0	0%

#### Notes

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7).

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

## Appendix D

### Programs with Option 1: Count and Percent Figures for Units Approved or Offered as Distance Education by Program

Program Title	Award Type	Total Min Number of Units	Distance Ed Approved Count	Distance Ed Approved Percent	Distance Ed Offered Count	Distance Ed Offered Percent
Computer Science	AS Degree	60	55	92%	45	75%
Art: General	AA Degree	32	19	59%	22	69%
Art: General	Certificate	32	19	59%	22	69%
Physical Education	AA Degree	34	23	68%	20	59%
English	AA-T Degree	29	17	59%	17	59%
Communication Studies	AA-T Degree	24	14	58%	14	58%
Spanish	AA-T Degree	34	19	56%	14	41%
Nanoscience	AS Degree	50	28	56%	20	40%
Physics	AS-T Degree	44	20	45%	10	23%
Mathematics	AS Degree	45	37	82%	10	22%
Theatre Arts	AA-T Degree	28	4	14%	4	14%
Enterprise Networking	AS Degree	55	55	100%	5	9%
Physics	AS Degree	59	25	42%	5	8%
Biological Sciences	AS Degree	51	0	0%	0	0%

#### Notes

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7).

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

## Appendix E

### Programs with Option 2: Count and Percent Figures for Courses Approved or Offered as Distance Education by Program

Program Title	Award Type	Total Min Number of Courses	Distance Ed Approved Count	Distance Ed Approved Percent	Distance Ed Offered Count	Distance Ed Offered Percent
Art: General	AA Degree	9	9	100%	8	89%
Art: General	Certificate	9	9	100%	8	89%
Computer Science	AS Degree	12	11	92%	9	75%
Communication Studies	AA-T Degree	6	5	83%	4	67%
English	AA-T Degree	7	4	57%	4	57%
Physical Education	AA Degree	9	6	67%	5	56%
Spanish	AA-T Degree	7	5	71%	3	43%
Nanoscience	AS Degree	9	8	89%	2	22%
Mathematics	AS Degree	9	7	78%	2	22%
Physics	AS-T Degree	9	4	44%	2	22%
Enterprise Networking	AS Degree	11	11	100%	1	9%
Physics	AS Degree	12	5	42%	1	8%
Biological Sciences	AS Degree	9	3	33%	0	0%
Theatre Arts	AA-T Degree	7	0	0%	0	0%

#### Notes

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7).

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

## Appendix E

### Programs with Option 2: Count and Percent Figures for Units Approved or Offered as Distance Education by Program

Program Title	Award Type	Total Min Number of Units	Distance Ed Approved Count	Distance Ed Approved Percent	Distance Ed Offered Count	Distance Ed Offered Percent
Art: General	AA Degree	34	22	65%	30	88%
Art: General	Certificate	34	22	65%	30	88%
Computer Science	AS Degree	60	55	92%	45	75%
Communication Studies	AA-T Degree	29	24	83%	19	66%
Physical Education	AA Degree	34	23	68%	20	59%
English	AA-T Degree	29	17	59%	17	59%
Spanish	AA-T Degree	34	24	71%	14	41%
Nanoscience	AS Degree	45	40	89%	10	22%
Mathematics	AS Degree	45	35	78%	10	22%
Physics	AS-T Degree	47	20	43%	10	21%
Enterprise Networking	AS Degree	55	55	100%	5	9%
Physics	AS Degree	62	25	40%	5	8%
Biological Sciences	AS Degree	48	15	31%	0	0%
Theatre Arts	AA-T Degree	28	0	0%	0	0%

#### Notes

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7).

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

**Appendix F**

**Programs with Option 3: Count and Percent Figures for Courses Approved or Offered as Distance Education by Program**

<b>Program Title</b>	<b>Award Type</b>	<b>Total Min Number of Courses</b>	<b>Distance Ed Approved Count</b>	<b>Distance Ed Approved Percent</b>	<b>Distance Ed Offered Count</b>	<b>Distance Ed Offered Percent</b>
Art: General	AA Degree	9	8	89%	6	67%
Art: General	Certificate	9	8	89%	6	67%
Physical Education	AA Degree	9	6	67%	5	56%
Mathematics	AS Degree	9	7	78%	2	22%
Enterprise Networking	AS Degree	11	11	100%	1	9%
Biological Sciences	AS Degree	9	0	0%	0	0%

**Notes**

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7).

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

## Appendix F

### Programs with Option 3: Count and Percent Figures for Units Approved or Offered as Distance Education by Program

Program Title	Award Type	Total Min Number of Units	Distance Ed Approved Count	Distance Ed Approved Percent	Distance Ed Offered Count	Distance Ed Offered Percent
Art: General	AA Degree	34	24	71%	22	65%
Art: General	Certificate	34	24	71%	22	65%
Physical Education	AA Degree	34	23	68%	20	59%
Mathematics	AS Degree	45	35	78%	10	22%
Enterprise Networking	AS Degree	55	55	100%	5	9%
Biological Sciences	AS Degree	51	0	0%	0	0%

#### Notes

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7).

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

## Appendix G

### Programs with Option 4: Count and Percent Figures for Courses Approved or Offered as Distance Education by Program

Program Title	Award Type	Total Min Number of Courses	Distance Ed Approved Count	Distance Ed Approved Percent	Distance Ed Offered Count	Distance Ed Offered Percent
Art: General	AA Degree	9	9	100%	7	78%
Art: General	Certificate	9	9	100%	7	78%
Mathematics	AS Degree	9	9	100%	4	44%
Enterprise Networking	AS Degree	12	12	100%	1	8%
Biological Sciences	AS Degree	9	0	0%	0	0%

#### Notes

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7.

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.



## Appendix G

### Programs with Option 4: Count and Percent Figures for Units Approved or Offered as Distance Education by

Program Title	Award Type	Total Min Number of Units	Distance Ed Approved Count	Distance Ed Approved Percent	Distance Ed Offered Count	Distance Ed Offered Percent
Art: General	AA Degree	34	22	65%	26	76%
Art: General	Certificate	34	22	65%	26	76%
Mathematics	AS Degree	45	37	82%	20	44%
Enterprise Networking	AS Degree	60	60	100%	5	8%
Biological Sciences	AS Degree	48	0	0%	0	0%

#### Notes

Only courses applicable to the major were included.

Total Min Number of Courses: Total minimum number of courses to meet program requirements.

Distance Ed Approved: Approved for distance education by spring 2015 (instructional codes beginning with 5, 6, or 7).

Distance Ed Offered: In the class schedule for the 2013-14 or 2014-15 academic year.

Programs with options are those that provide defined sets/options of courses to meet program requirements.

## Appendix H

### Count and Percent Figures for Prior and Current Academic Year for Courses and Units Offered as Distance Education by Program and Units of Analysis

Program Title	Award Type	Type of Analysis	Prior Min Number	Prior Distance Ed Offered Count	Prior Distance Ed Offered Percent	Current Min Number	Current Distance Ed Offered Count	Current Distance Ed Offered Percent	Percent Change
Accounting	AA Degree	Courses	11	10	91%	11	11	100%	9%
Accounting	Certificate	Courses	9	8	89%	9	9	100%	11%
Accounting	AA Degree	Units	48	43	90%	53	53	100%	10%
Accounting	Certificate	Units	38	33	87%	43	43	100%	13%
Anthropology	AA Degree	Courses	9	9	100%	9	9	100%	0%
Anthropology	AA-T Degree	Courses	7	7	100%	7	7	100%	0%
Anthropology	AA Degree	Units	36	36	100%	36	36	100%	0%
Anthropology	AA-T Degree	Units	27	27	100%	27	27	100%	0%
Art History	AA-T Degree	Courses	7	7	100%	7	7	100%	0%
Art History	AA-T Degree	Units	30	30	100%	30	30	100%	0%
Business Administration	AS-T Degree	Courses	8	7	88%	8	8	100%	12%
Business Administration	AS-T Degree	Units	40	35	88%	40	40	100%	12%
CPA Exam Preparation	Certificate	Courses	8	7	88%	8	8	100%	12%
CPA Exam Preparation	Certificate	Units	32	32	100%	37	37	100%	0%
Economics	AA Degree	Courses	8	8	100%	8	8	100%	0%
Economics	AA Degree	Units	34	34	100%	34	34	100%	0%
Graphic and Interactive Design	AA Degree	Courses	15	15	100%	15	15	100%	0%
Graphic and Interactive Design	Certificate	Courses	15	15	100%	15	15	100%	0%
Graphic and Interactive Design	AA Degree	Units	58	58	100%	58	58	100%	0%
Graphic and Interactive Design	Certificate	Units	58	58	100%	58	58	100%	0%
History	AA Degree	Courses	9	9	100%	9	9	100%	0%
History	AA-T Degree	Courses	8	8	100%	8	8	100%	0%
History	AA Degree	Units	36	36	100%	36	36	100%	0%
History	AA-T Degree	Units	32	32	100%	32	32	100%	0%
Music Technology	AA Degree	Courses	12	12	100%	12	12	100%	0%
Music Technology	Certificate	Courses	9	9	100%	9	9	100%	0%

**Appendix H**

<b>Program Title</b>	<b>Award Type</b>	<b>Type of Analysis</b>	<b>Prior Min Number</b>	<b>Prior Distance Ed Offered Count</b>	<b>Prior Distance Ed Offered Percent</b>	<b>Current Min Number</b>	<b>Current Distance Ed Offered Count</b>	<b>Current Distance Ed Offered Percent</b>	<b>Percent Change</b>
Music Technology	AA Degree	Units	47.5	47.5	100%	47.5	47.5	100%	0%
Music Technology	Certificate	Units	35.5	35.5	100%	35.5	35.5	100%	0%
Music: General	AA Degree	Courses	10	10	100%	10	10	100%	0%
Music: General	AA Degree	Units	43	43	100%	47	47	100%	0%
Psychology	AA Degree	Courses	8	8	100%	8	8	100%	0%
Psychology	AA-T Degree	Courses	6	6	100%	6	6	100%	0%
Psychology	AA Degree	Units	35	35	100%	35	35	100%	0%
Psychology	AA-T Degree	Units	27	27	100%	27	27	100%	0%
Sociology	AA Degree	Courses	7	7	100%	7	7	100%	0%
Sociology	AA-T Degree	Courses	8	8	100%	8	8	100%	0%
Sociology	AA Degree	Units	30	30	100%	30	30	100%	0%
Sociology	AA-T Degree	Units	32	32	100%	32	32	100%	0%
Art History	AA Degree	Courses	11	10	91%	11	10	91%	0%
Art History	Certificate	Courses	11	10	91%	11	10	91%	0%
Art History	AA Degree	Units	48	43.5	91%	48	43.5	91%	0%
Art History	Certificate	Units	48	43.5	91%	48	43.5	91%	0%
Art: General	AA Degree	Option 2 Courses	9	8	89%	9	8	89%	0%
Art: General	Certificate	Option 2 Courses	9	8	89%	9	8	89%	0%
General Studies: Humanities	AA Degree	Courses	9	7	78%	9	8	89%	11%
General Studies: Humanities	AA Degree	Units	28	28	100%	36	32	89%	-11%
Geography	AS Degree	Courses	9	8	89%	9	8	89%	0%
Geography	AS Degree	Units	33	33	100%	37	33	89%	-11%
Music Technology Pro Tools	Certificate	Courses	9	9	100%	9	8	89%	-11%
Music Technology Pro Tools	Certificate	Units	36	36	100%	36	32	89%	-11%
Art: General	AA Degree	Option 2 Units	33	29	88%	34	30	88%	0%

**Appendix H**

<b>Program Title</b>	<b>Award Type</b>	<b>Type of Analysis</b>	<b>Prior Min Number</b>	<b>Prior Distance Ed Offered Count</b>	<b>Prior Distance Ed Offered Percent</b>	<b>Current Min Number</b>	<b>Current Distance Ed Offered Count</b>	<b>Current Distance Ed Offered Percent</b>	<b>Percent Change</b>
Art: General	Certificate	Option 2 Units	33	29	88%	34	30	88%	0%
Business International Studies	Certificate	Units	63	46	73%	64	56	88%	15%
Digital Imaging II	Certificate	Courses	8	5	63%	8	7	88%	25%
Women Studies	AA Degree	Courses	8	6	75%	8	7	88%	13%
Women Studies	AA Degree	Units	33	25	76%	33	29	88%	12%
Business International Studies	AA Degree	Units	52	39	75%	53	45	85%	10%
Digital Imaging II	Certificate	Units	31	18	58%	31	26	84%	26%
Business Administration	AA Degree	Units	48	38	79%	54	45	83%	4%
Business International Studies	AA Degree	Courses	12	9	75%	12	10	83%	8%
Business International Studies	Certificate	Courses	12	9	75%	12	10	83%	8%
Communication Studies	AA Degree	Courses	6	4	67%	6	5	83%	16%
Communication Studies	AA Degree	Units	30	20	67%	30	25	83%	16%
Geography	AA-T Degree	Courses	6	5	83%	6	5	83%	0%
Business Administration	AA Degree	Courses	11	8	73%	11	9	82%	9%
Art: General	AA Degree	Option 4 Courses	9	7	78%	9	7	78%	0%
Art: General	Certificate	Option 4 Courses	9	7	78%	9	7	78%	0%
Geography	AA-T Degree	Units	27	21	78%	27	21	78%	0%
Art: General	AA Degree	Option 4 Units	33	26	79%	34	26	76%	-3%
Art: General	Certificate	Option 4 Units	33	26	79%	34	26	76%	-3%
Philosophy	AA Degree	Units	33	21	64%	33	25	76%	12%
Computer Science	AS Degree	Option 1 Courses	12	7	58%	12	9	75%	17%
Computer Science	AS Degree	Option 1 Units	60	31	52%	60	45	75%	23%

**Appendix H**

<b>Program Title</b>	<b>Award Type</b>	<b>Type of Analysis</b>	<b>Prior Min Number</b>	<b>Prior Distance Ed Offered Count</b>	<b>Prior Distance Ed Offered Percent</b>	<b>Current Min Number</b>	<b>Current Distance Ed Offered Count</b>	<b>Current Distance Ed Offered Percent</b>	<b>Percent Change</b>
Computer Science	AS Degree	Option 2 Courses	12	7	58%	12	9	75%	17%
Computer Science	AS Degree	Option 2 Units	60	31	52%	60	45	75%	23%
Philosophy	AA Degree	Courses	8	5	63%	8	6	75%	12%
General Studies: Science	AS Degree	Units	32	23	72%	32	23	72%	0%
Philosophy	AA-T Degree	Units	29	21	72%	29	21	72%	0%
General Studies: Science	AS Degree	Courses	7	5	71%	7	5	71%	0%
Philosophy	AA-T Degree	Courses	7	5	71%	7	5	71%	0%
Political Science	AA Degree	Courses	10	7	70%	10	7	70%	0%
Political Science	AA Degree	Units	43	30	70%	43	30	70%	0%
Traditional Photography	AA Degree	Courses	10	5	50%	10	7	70%	20%
Traditional Photography	AA Degree	Units	40	20	50%	40	28	70%	20%
Art: General	AA Degree	Option 1 Units	31	18	58%	32	22	69%	11%
Art: General	Certificate	Option 1 Units	31	18	58%	32	22	69%	11%
Studio Arts	AA-T Degree	Courses	16	11	69%	16	11	69%	0%
Studio Arts	AA-T Degree	Units	62.5	43.5	70%	63.5	43.5	69%	-1%
Art: General	AA Degree	Option 1 Courses	9	5	56%	9	6	67%	11%
Art: General	Certificate	Option 1 Courses	9	5	56%	9	6	67%	11%
Art: General	AA Degree	Option 3 Courses	9	6	67%	9	6	67%	0%
Art: General	Certificate	Option 3 Courses	9	6	67%	9	6	67%	0%
Communication Studies	AA-T Degree	Option 2 Courses	6	3	50%	6	4	67%	17%

**Appendix H**

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Communication Studies	AA-T Degree	Option 2 Units	29	14	48%	29	19	66%	18%
Art: General	AA Degree	Option 3 Units	29	22	76%	34	22	65%	-11%
Art: General	Certificate	Option 3 Units	29	22	76%	34	22	65%	-11%
English	AA-T Degree	Option 1 Units	29	13	45%	29	17	59%	14%
English	AA-T Degree	Option 2 Units	29	13	45%	29	17	59%	14%
English	AA Degree	Units	29	17	59%	29	17	59%	0%
Physical Education	AA Degree	Option 1 Units	15	4	27%	34	20	59%	32%
Physical Education	AA Degree	Option 2 Units	15	4	27%	34	20	59%	32%
Physical Education	AA Degree	Option 3 Units	15	4	27%	34	20	59%	32%
Communication Studies	AA-T Degree	Option 1 Units	24	9	38%	24	14	58%	20%
English	AA Degree	Courses	7	4	57%	7	4	57%	0%
English	AA-T Degree	Option 1 Courses	7	3	43%	7	4	57%	14%
English	AA-T Degree	Option 2 Courses	7	3	43%	7	4	57%	14%
Early Childhood Education	AS-T Degree	Courses	9	4	44%	9	5	56%	12%
Physical Education	AA Degree	Option 1 Courses	9	1	11%	9	5	56%	45%
Physical Education	AA Degree	Option 2 Courses	9	1	11%	9	5	56%	45%

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Physical Education	AA Degree	Option 3 Courses	9	1	11%	9	5	56%	45%
Early Childhood Education	AS-T Degree	Units	35	16	46%	37	20	54%	8%
Communication Studies	AA-T Degree	Option 1 Courses	6	2	33%	6	3	50%	17%
Mathematics	AS-T Degree	Courses	6	1	17%	6	3	50%	33%
Mathematics	AS-T Degree	Units	30	5	17%	30	15	50%	33%
Child Development Teacher	AA Degree	Units	47	19	40%	49	23	47%	7%
Child Development Teacher	AA Degree	Courses	13	5	38%	13	6	46%	8%
Spanish	AA Degree	Units	40	0	0%	40	18	45%	45%
Mathematics	AS Degree	Option 4 Courses	9	2	22%	9	4	44%	22%
Mathematics	AS Degree	Option 4 Units	45	10	22%	45	20	44%	22%
Spanish	AA Degree	Courses	9	0	0%	9	4	44%	44%
Adaptive Fitness Therapy	AA Degree	Units	12	12	100%	42	18	43%	-57%
Adaptive Fitness Therapy	Certificate	Units	12	12	100%	42	18	43%	-57%
Spanish	AA-T Degree	Option 1 Courses	7	0	0%	7	3	43%	43%
Spanish	AA-T Degree	Option 2 Courses	7	0	0%	7	3	43%	43%
Adaptive Fitness Therapy	AA Degree	Courses	12	3	25%	12	5	42%	17%
Adaptive Fitness Therapy	Certificate	Courses	12	3	25%	12	5	42%	17%
Theatre Technology	AA Degree	Courses	12	5	42%	12	5	42%	0%
Theatre Technology	Certificate	Courses	12	5	42%	12	5	42%	0%
Theatre Technology	AA Degree	Units	45	20	44%	48	20	42%	-2%
Theatre Technology	Certificate	Units	45	20	44%	48	20	42%	-2%
Spanish	AA-T Degree	Option 1 Units	34	0	0%	34	14	41%	41%

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Spanish	AA-T Degree	Option 2 Units	34	0	0%	34	14	41%	41%
Nanoscience	AS Degree	Option 1 Courses	10	0	0%	10	4	40%	40%
Nanoscience	AS Degree	Option 1 Units	50	0	0%	50	20	40%	40%
Program Supervisor & Mentoring	Certificate	Courses	16	5	31%	16	6	38%	7%
Program Supervisor & Mentoring	Certificate	Units	59	19	32%	61	23	38%	6%
Computer Science	AS-T Degree	Courses	9	2	22%	9	3	33%	11%
Nanoscience	Certificate	Courses	6	0	0%	6	2	33%	33%
Nanoscience	Certificate	Units	30	0	0%	30	10	33%	33%
Computer Science	AS-T Degree	Units	37	10	27%	47	15	32%	5%
Physics	AS-T Degree	Option 1 Courses	8	0	0%	8	2	25%	25%
Paramedic	AS Degree	Courses	13	1	8%	13	3	23%	15%
Paramedic	Certificate	Courses	13	1	8%	13	3	23%	15%
Physics	AS-T Degree	Option 1 Units	44	0	0%	44	10	23%	23%
Mathematics	AS Degree	Option 1 Courses	9	1	11%	9	2	22%	11%
Mathematics	AS Degree	Option 1 Units	45	5	11%	45	10	22%	11%
Mathematics	AS Degree	Option 2 Courses	9	0	0%	9	2	22%	22%
Mathematics	AS Degree	Option 2 Units	45	0	0%	45	10	22%	22%
Mathematics	AS Degree	Option 3 Courses	9	0	0%	9	2	22%	22%



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Mathematics	AS Degree	Option 3 Units	45	0	0%	45	10	22%	22%
Nanoscience	AS Degree	Option 2 Courses	9	1	11%	9	2	22%	11%
Nanoscience	AS Degree	Option 2 Units	40	5	13%	45	10	22%	9%
Physics	AS-T Degree	Option 2 Courses	9	0	0%	9	2	22%	22%
Physics	AS-T Degree	Option 2 Units	50	0	0%	47	10	21%	21%
Chemistry	AS Degree	Courses	11	0	0%	11	2	18%	18%
Chemistry	AS Degree	Units	60	0	0%	60	10	17%	17%
Dental Hygiene	AS Degree	Courses	45	6	13%	45	7	16%	3%
Engineering	AS Degree	Courses	13	1	8%	13	2	15%	7%
Engineering	AS Degree	Units	68	5	7%	68	10	15%	8%
Dental Hygiene	AS Degree	Units	121.5	18	15%	128.5	18	14%	-1%
Theatre Arts	AA-T Degree	Option 1 Courses	7	2	29%	7	1	14%	-15%
Theatre Arts	AA-T Degree	Option 1 Units	28	8	29%	28	4	14%	-15%
Pharmacy Technician	AS Degree	Courses	18	0	0%	18	2	11%	11%
Pharmacy Technician	Certificate	Courses	18	0	0%	18	2	11%	11%
Dental Assisting	AS Degree	Courses	21	2	10%	21	2	10%	0%
Dental Assisting	Certificate	Courses	21	2	10%	21	2	10%	0%
Diagnostic Medical Sonography	AS Degree	Courses	31	1	3%	31	3	10%	7%
Diagnostic Medical Sonography	Certificate	Courses	31	1	3%	31	3	10%	7%
Enterprise Networking	AS Degree	Option 1 Courses	11	2	18%	11	1	9%	-9%

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Enterprise Networking	AS Degree	Option 1 Units	45	10	22%	55	5	9%	-13%
Enterprise Networking	AS Degree	Option 2 Courses	11	2	18%	11	1	9%	-9%
Enterprise Networking	AS Degree	Option 2 Units	45	10	22%	55	5	9%	-13%
Enterprise Networking	AS Degree	Option 3 Courses	11	2	18%	11	1	9%	-9%
Enterprise Networking	AS Degree	Option 3 Units	40	10	25%	55	5	9%	-16%
Physics	AS Degree	Option 1 Courses	11	0	0%	11	1	9%	9%
Radiologic Technology	AS Degree	Courses	33	1	3%	33	3	9%	6%
Athletic Injury Care	AS Degree	Courses	13	0	0%	13	1	8%	8%
Athletic Injury Care	AS Degree	Units	20	0	0%	48	4	8%	8%
Enterprise Networking	AS Degree	Option 4 Courses	12	2	17%	12	1	8%	-9%
Enterprise Networking	AS Degree	Option 4 Units	50	10	20%	60	5	8%	-12%
Physics	AS Degree	Option 1 Units	59	0	0%	59	5	8%	8%
Physics	AS Degree	Option 2 Courses	12	0	0%	12	1	8%	8%
Physics	AS Degree	Option 2 Units	65	0	0%	62	5	8%	8%
Respiratory Therapy	AS Degree	Courses	39	1	3%	39	3	8%	5%
Theatre Arts	AA Degree	Courses	13	2	15%	13	1	8%	-7%
Dental Assisting	AS Degree	Units	44	3.5	8%	47	3.5	7%	-1%
Dental Assisting	Certificate	Units	44	3.5	8%	47	3.5	7%	-1%

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Radiologic Technology	AS Degree	Units	94.5	5	5%	99.5	7	7%	2%
Theatre Arts	AA Degree	Units	52	8	15%	54	4	7%	-8%
Respiratory Therapy	AS Degree	Units	105.5	5	5%	108	7	6%	1%
Paramedic	AS Degree	Units	56.5	1	2%	57	3	5%	3%
Paramedic	Certificate	Units	56.5	1	2%	57	3	5%	3%
Diagnostic Medical Sonography	AS Degree	Units	96	2	2%	105.5	4	4%	2%
Diagnostic Medical Sonography	Certificate	Units	96	2	2%	105.5	4	4%	2%
Pharmacy Technician	AS Degree	Units	42	0	0%	52	2	4%	4%
Pharmacy Technician	Certificate	Units	42	0	0%	52	2	4%	4%
Veterinary Technology	AS Degree	Courses	38	0	0%	38	1	3%	3%
Veterinary Technology	AS Degree	Units	90	0	0%	94.5	1.5	2%	2%
Apprenticeship: Sheet Metal Building Trades	AS Degree	Courses	37	0	0%	37	0	0%	0%
Apprenticeship: Sheet Metal Building Trades	AS Degree	Units	55.5	0	0%	55.5	0	0%	0%
Biological Sciences	AS Degree	Option 1 Courses	9	0	0%	9	0	0%	0%
Biological Sciences	AS Degree	Option 1 Units	51	0	0%	51	0	0%	0%
Biological Sciences	AS Degree	Option 2 Courses	9	1	11%	9	0	0%	-11%
Biological Sciences	AS Degree	Option 2 Units	48	5	10%	48	0	0%	-10%
Biological Sciences	AS Degree	Option 3 Courses	9	0	0%	9	0	0%	0%
Biological Sciences	AS Degree	Option 3 Units	51	0	0%	51	0	0%	0%
Biological Sciences	AS Degree	Option 4 Courses	9	0	0%	9	0	0%	0%

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Biological Sciences	AS Degree	Option 4 Units	51	0	0%	48	0	0%	0%
Environmental Horticulture & Design	AS Degree	Courses	24	0	0%	24	0	0%	0%
Environmental Horticulture & Design	Certificate	Courses	24	0	0%	24	0	0%	0%
Environmental Horticulture & Design	AS Degree	Units	57	0	0%	66	0	0%	0%
Environmental Horticulture & Design	Certificate	Units	57	0	0%	66	0	0%	0%
Field Ironworkers Apprenticeship	Certificate	Courses	18	0	0%	18	0	0%	0%
Field Ironworkers Apprenticeship	Certificate	Units	35	0	0%	37	0	0%	0%
General Electrician	AS Degree	Courses	10	0	0%	10	0	0%	0%
General Electrician	AS Degree	Units	35	0	0%	35	0	0%	0%
General Electrician Apprenticeship	Certificate	Courses	10	0	0%	10	0	0%	0%
General Electrician Apprenticeship	Certificate	Units	35	0	0%	35	0	0%	0%
Plumbing/Pipefitting/Pipe Trades Apprenticeship	Certificate	Courses	10	0	0%	10	0	0%	0%
Plumbing/Pipefitting/Pipe Trades Apprenticeship	Certificate	Units	42.5	0	0%	42.5	0	0%	0%
Primary Care Associate	AS Degree	Courses	28	0	0%	28	0	0%	0%
Primary Care Associate	Certificate	Courses	28	0	0%	28	0	0%	0%
Primary Care Associate	AS Degree	Units	95.5	0	0%	103.5	0	0%	0%
Primary Care Associate	Certificate	Units	95.5	0	0%	103.5	0	0%	0%
Sheet Metal Apprenticeship	Certificate	Courses	37	0	0%	37	0	0%	0%
Sheet Metal Apprenticeship	Certificate	Units	55.5	0	0%	55.5	0	0%	0%
Theatre Arts	AA-T Degree	Option 2 Courses	7	1	14%	7	0	0%	-14%

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Theatre Arts	AA-T Degree	Option 2 Units	28	4	14%	28	0	0%	-14%

**Notes**

Only courses applicable to the major were included.

Current Distance Ed Offered: In the class schedule for 2013-14 or 2014-15 academic year.

Prior Distance Ed Offered: In the class schedule for 2011-12 or 2012-13 academic year.