IRP@FHDA

To: Lorrie Ranck, Dean Learning Resources Division, De Anza College

From: Lourdes Del Rio-Parent, PhD, Sr. Research Analyst/Data Warehouse Coordinator FHDA

Date: May 19, 2017

Re: Percentage of Distance Education Courses and Unis by Program of Study, De Anza College, 2016-17 Academic Year

This document provides an estimate of the percentage of distance education (DE) courses and units applicable to the major or program of study for degree or certificate programs offered at De Anza College in the 2016-17 academic year. For general education (GE) options available to De Anza College students to meet degree or transfer requirements for the same academic year, counts and percentage statistics for DE applicable courses and units are also provided.

Research Questions

The information in this document addresses the following research questions related to degrees and certificates offered at De Anza College in the 2016-17 academic year:

1. Which programs had at least 50% of their courses and units offered through distance education (DE) within the last two academic years (2015-16 and 2016-17), not including general education requirements?

2. Regarding options for meeting general education requirements for associate degrees or transfer, to what extent courses applicable to these GE options (*De Anza College General Education/Breadth Requirements for AA/AS*, *California State University General Education/Breadth Requirements*, and *UC/CSU Intersegmental General Education Transfer Curriculum*) were offered through distance education?

Methods

A total of 145 programs offered at De Anza College[1] in the academic year of 2016-17 that were also approved by the California Community Colleges Chancellor's Office[2] were included in this study. These included 40 associate of arts degrees, 6 associate for arts degrees for transfer, 13 associate of science degrees, 6 associate of science degrees for transfer, 32 advanced certificates, and 48 certificates. The title, top code, and unique code for each program included in the study are listed in Appendix A.

Based on the college catalog for the 2016-17 academic year, courses applicable to each program were grouped by their role in meeting program requirements (e.g., required, elective, or optional). For courses included in groups of electives or options, the number of units or courses required for each group was recorded and used to identify or estimate minimum requirements. SQL scripts were used to test for data accuracy (e.g., accuracy of course identifier, grouping by course program role, requirements) and assess the extent to which each program was offered through distance education (DE), based on percentage of units and courses offered as DE during the current and previous academic year. The methodology used in this study is described in more detail in Appendix B.

Course approval status for distance education (DE) instruction was based on course schedule type code (first character equal to '5', '6', or '7'), as shown in Banner-SCACRSE. A course was classified as offered through DE if it had at least one section offered[3] in 2015-16 or 2016-17 in which all meetings or sessions were delivered online, as shown in Banner-SSASECT, room code. Hybrid sections were not included.

---

[1] Degrees and programs offered at De Anza College are available at: https://www.deanza.edu/counseling/degreecert.html.
[2] Based on information provided at: http://curriculum.cccco.edu/ReportsPublic/InventoryReport/Report
[3] Only sections with enrollment greater than zero by census date were included in the study.

Only courses applicable to the major or program of study were included in the analyses. Both the percentages for number of courses and number of units were used to identify programs with at least 50% of instruction delivered through distance education, which provided a methods for cross-validating results.

For programs with options, courses applicable to all options and those only for the option were combined and analyzed separately, as if they were a unique program. In a few occasions, the options offered by a program provided too many alternatives, which made the coding for these options rather too complex. In these cases, only the option with the most flexibility (i.e., most variety of courses to choose from) was analyzed or figures for the program were calculated manually.

Results

Research Question 1.

Which programs had at least 50% of their courses and units offered through distance education (DE) within the last two academic years (2015-16 and 2016-17), not including general education requirements?

A total of 47 programs (18 associate of arts, 1 associate of arts for transfer, 1 associate of science, 2 associate of science for transfer, 9 advanced certificates, and 16 certificates) had at least 50% of their courses and units offered through distance education, not including general education requirements. Table 1 shows a list of these programs, including applicable options. Appendix C and Appendix D show results for all programs without options; Appendix E and F show results for programs with options.

Table 1. Percentage Figures for Programs that had at least 50% of their Courses and Units Applicable to the Major offered through Distance Education, De Anza College, 2017

Program Title	Type	Top Code	Unique Code	Percent Courses	Percent Units
		Program without Options			
Business Administration	AA	050500	05952	100	100
Business Administration	CEA	050500	31272	100	100
Business Administration for Transfer	AS-T	050500	31488	100	100
Entrepreneurship	CEA	050640	19523	100	100
Marketing Management	AA	050900	06005	100	100
Marketing Management	CEA	050900	19536	100	100
Liberal Arts: Business and Computer Info. Systems	AA	059900	15963	100	100
Network Basics	CEA	070710	31549	100	100
Database Design for Developers (Oracle)	CEA	070720	19846	100	100
Computer Aided Design - Mechanical	CEA	095300	23083	100	100
Liberal Arts: Social and Behavioral Sciences Emphasis	AA	220100	15964	100	100
Liberal Arts: Science, Math and Engineering Emphasis	AA	490200	15516	100	100
Liberal Arts: Arts and Letters Emphasis	AA	490310	15965	100	100

Program Title	Type	Top Code	Unique Code	Percent Courses	Percent Units
Management	AA	050600	18004	92	92
Accounting: Practice Emphasis	AA	050200	10108	91	96
Accounting: Practice Emphasis	CAA	050200	23063	91	96
Business Programming	AA	070710	06006	90	90
Business Programming	CAA	070710	23070	90	90
Accounting	CEA	050200	05951	86	92
Environmental Resource Management and Pollution Prevention	CAA	030300	19521	86	80
Management	CEA	050600	19291	80	83
Network Administration	CEA	070810	10114	80	80
Enterprise Security Professional	CEA	070810	30944	80	80
Speech Communication	CEA	150600	30954	80	75
Web Development	CEA	070710	31502	80	72
Environmental Resource Management and Pollution Prevention	AA	030300	07099	79	75
Network Administration	AA	070810	12199	78	79
Network Administration	CAA	070810	19540	78	79
Global Studies	AA	221000	16510	76	74
Programming in C/C++	CEA	070710	31511	75	75
Systems Programming	AA	070710	10112	67	67
Systems Programming	CAA	070710	23071	67	67
Network Programming	AA	070810	11040	67	67
Network Programming	CAA	070810	23072	67	67
Real Estate	AA	051100	05954	64	64
Programming in JAVA	CEA	070710	31498	60	60
UNIX/LINUX Operating System	CEA	070710	31500	60	60
Journalism	AA	060200	16977	60	58
Environmental Resource Management and Pollution Prevention	AS	094610	10137	59	56
Global Studies	CAA	221000	23097	56	50
Leadership and Social Change	CEA	219900	31514	50	57
Program with Options					
Intercultural Studies-OPT 1	AA	220300	05996	73	70
Enterprise Security Professional-OPT 2	AA	070810	16975	71	72
Enterprise Security Professional-OPT 1	AA	070810	16975	63	66
Political Science for Transfer-OPT 1	AA-T	220700	31820	86	88
History for Transfer-OPT 1	AS-T	220500	31805	88	88
History for Transfer-OPT 2	AS-T	220500	31805	63	63
Intercultural Studies-OPT 1	CAA	220300	23096	73	70
Enterprise Security Professional-OPT 2	CAA	070810	23073	71	72
Enterprise Security Professional-OPT 1	CAA	070810	23073	63	66

Research Question 2.

Regarding options for meeting general education (GE) requirements for associate degrees or transfer, to what extent courses applicable to these GE options (*De Anza College General Education/Breadth Requirements for AA/AS*, *California State University General Education/Breadth Requirements*, and *UC/CSU Intersegmental General Education Transfer Curriculum*) were offered through distance education?

About 79% to 89% of the units for courses applicable to meet general education (GE) requirements for a degree or transfer at De Anza College in the 2016-17 academic year were offered as distance education (DE) during the current or prior academic year. The option for UC IGETC (University of California Intersegmental General Education Transfer Curriculum*)* showed the highest percentage for the number of units (89%) offered as DE, while the CSU General Education/Breadth option showed the lowest percentage (79%). Table 2 shows figures used for calculating these percentages and the areas within each GE option that had no courses offered as DE. Appendix G and Appendix H show the minimum number of courses or units estimated to meet requirements by GE option and related areas, and the percentage for these offered through DE.

Table 2. Options for Meeting General Education Requirements for the Associate of Arts Degree (AA), Associate of Science (AS), or Transfer at De Anza College, 2017

De Anza College General Education/Breadth, AA/AS	
Total min units required	32
Areas not offered through distance education (DE)	
Area A2 Oral Communication (average units)	5
Area E Physical Educat Activity (average units)	1
Total units for areas not offered through DE	6
Total units for areas offered through DE	26
Percent for units offered through DE	81%
CSU General Education Breadth	
Total min units required	58
Areas not offered through distance education (DE)	
Area A1 Oral Communication (average units)	5
Area B3 Lab Activity (average units)	4
Total units for areas not offered as DE	9
Total units for areas offered through DE	49
Percent for units offered through DE	84%
UC Intersegmental General Education Transfer	
Total min units required	47
Areas not offered through distance education (DE)	
Area 5C Science Laboratory (average units)	5
Total units for areas not offered as DE	5
Total units for areas offered as DE	42
Percent for units offered as distance education	89%
CSU Intersegmental General Education Transfer	
Total min units required	47
Areas not offered through distance education (DE)	
Area 1C Oral Communication (average units)	5
Area 5C Science Laboratory (average units)	5
Total units for areas not offered as DE	10
Total units for areas offered as DE	37
Percent for units offered as distance education	79%

Program Title, TOP Code, and Unique Code by Award Type, De Anza College, 2017

Associate of Arts

Title	TOP Code	Unique Code
Wildlife Science Technician	011500	07110
Environmental Resource Management and Pollution Prevention	030300	07099
Accounting: Practice Emphasis	050200	10108
Business Administration	050500	05952
Management	050600	18004
Marketing Management	050900	06005
Real Estate	051100	05954
Liberal Arts: Business and Computer Info. Systems	059900	15963
Journalism	060200	16977
Film/TV: Production	060420	07090
Film/TV: Screenwriting	061220	31308
Film/TV: Animation	061440	09226
Business Programming	070710	06006
Systems Programming	070710	10112
Enterprise Security Professional	070810	16975
Network Administration	070810	12199
Network Programming	070810	11040
Art History	100100	05965
Painting	100210	10125
Sculpture	100220	10127
Ceramics	100230	10124
Music	100400	05966
Photographic Arts	101100	05969
Professional Photography	101200	05970
Graphic and Interactive Design	103000	05971
Medical Laboratory Technology	120500	16757
Medical Assisting	120800	05980
Massage Therapy	126200	07104
Child Development	130500	05994
Paralegal Studies	140200	07102
English	150100	30618
Speech Communication	150600	05983
Law Enforcement	210500	05992
Corrections/Probation	210510	05993
Private Security	210530	07103
Liberal Arts: Social and Behavioral Sciences Emphasis	220100	15964
Intercultural Studies	220300	05996
Global Studies	221000	16510
Liberal Arts: Science, Math and Engineering Emphasis	490200	15516
Liberal Arts: Arts and Letters Emphasis	490310	15965

Total associate of arts degrees: 40

Appendix A

Associate of Arts for Transfer Degree

Title	TOP Code	Unique Code
Journalism for Transfer	060200	33338
Kinesiology for Transfer	127000	31293
English for Transfer	150100	33178
Communication Studies for Transfer	150600	30936
Political Science for Transfer	220700	31820
Sociology for Transfer	220800	31736

Total associate of arts for transfer degrees: 6

Associate of Science Degree

Title	TOP Code	Unique Code
Biological Sciences	040100	12727
Environmental Resource Management and Pollution Prevention	094610	10137
Advanced Engine Performance Technology	094800	11784
Automotive Machining and Engine Repair Technology	094800	10117
Automotive Powertrain Technology	094800	07091
Automotive Technology: Automotive Chassis and Powertrain	094800	11779
Automotive Technology: Automotive Engine Performance	094800	11778
Automotive Technology: Automotive Machining and Engine Repair	094800	05962
Product Model Making	095600	10121
CNC Machinist	095630	18850
CNC Research and Development Machinist	095630	10122
Licensed Vocational Nurse to Registered Nurse	123010	12821
Registered Nurse	123010	07101

Total associate of science degrees: 13

Associate of Science Degree for Transfer

Title	TOP Code	Unique Code
Business Administration for Transfer	050500	31488
Computer Science for Transfer	070600	33336
Early Childhood Education for Transfer	130500	32006
Mathematics for Transfer	170100	30911
Administration of Justice for Transfer	210500	31747
History for Transfer	220500	31805

Total associate degrees for transfer: 6

Appendix A

Advanced Certificate of Achievement		
Title	*TOP Code*	*Unique Code*
Wildlife Science Technician	011500	18901
Environmental Resource Management and Pollution Prevention	030300	19521
Accounting: Practice Emphasis	050200	23063
Film/TV: Production	060420	23067
Business Programming	070710	23070
Systems Programming	070710	23071
Enterprise Security Professional	070810	23073
Network Administration	070810	19540
Network Programming	070810	23072
Environmental Resource Management and Pollution Prevention	094610	19531
Advanced Engine Performance Technology	094800	23077
Automotive Machining and Engine Repair Technology	094800	23078
Automotive Powertrain Technology	094800	23079
Automotive Technology: Automotive Chassis and Powertrain	094800	23080
Automotive Technology: Automotive Engine Performance	094800	23081
Automotive Technology: Automotive Machining and Engine Repair	094800	23082
Product Model Making	095600	23084
CNC Machinist	095630	16759
CNC Research and Development Machinist	095630	23085
Art History	100100	23086
Graphic and Interactive Design	103000	23090
Mandarin	110700	33366
Medical Laboratory Technology	120500	23092
Medical Assisting	120800	19534
Medical Secretary	120820	10129
Massage Therapy	126200	19533
Child Development	130500	23093
Early Intervention/Special Education Assistant	130520	15181
Paralegal Studies	140200	23094
Private Security	210530	23095
Intercultural Studies	220300	23096
Global Studies	221000	23097

Total for advanced certificates of achievement: 32

Certificate of Achievement		
Title	*TOP Code*	*Unique Code*
Wildlife Science Technician	011500	18905
Accounting	050200	05951
Business Administration	050500	31272
Management	050600	19291
Project Management Practitioner	050600	19537
Entrepreneurship	050640	19523
Marketing Management	050900	19536
Real Estate	051100	23065
Film/TV: Production	060420	31504
Network Basics	070710	31549
Programming in C/C++	070710	31511
Programming in JAVA	070710	31498
Programming in PERL	070710	31499
UNIX/LINUX Operating System	070710	31500
Visual Basic Programming	070710	31501
Web Development	070710	31502
Database Design for Developers (Oracle)	070720	19846
Enterprise Security Professional	070810	30944
Network Administration	070810	10114
Energy Management and Building Science	094610	19532
Advanced Automotive Technology	094800	30952
Advanced Engine Performance Technology	094800	30957
Automotive Chassis Technology	094800	30956
Automotive Machining and Engine Repair Technology	094800	30953
Automotive Powertrain Technology	094800	30955
Basic Engine Performance Technology	094800	30959
Intermediate Engine Performance Technology	094800	30958
Smog Technician	094800	30943
Computer Aided Design - Mechanical	095300	23083
CNC Machinist	095630	33330
CNC Programming - CAD-CAM	095630	33329
Professional Photography	101200	30933
Graphic and Interactive Design	103000	30931
Mandarin	110700	33456
Clinical Laboratory Assistant	120500	33800
Phlebotomy Technician I	120510	10135
Lab Assisting	120810	10132
Business Office Clerk	120820	12869
Insurance and Coding	120820	10131
Medical File Clerk	120820	10416
Medical Reception	120820	10133
Medical Records Clerk	120820	10417
Medical Transcription	120820	10134
Massage Therapy	126200	11813

Certificate of Achievement (cont.)		
Title	*TOP Code*	*Unique Code*
Child Development	130500	12827
Early Childhood Mental Health	130520	19530
Speech Communication	150600	30954
Leadership and Social Change	219900	31514

Total for certificates of achievement offered: 48

Estimating Percentage of Distance Education Courses or Units for a Degree or Certificate Program

The main challenge when estimating the percentage of distance education units or courses for a degree or certificate program is that students are not always given a well-defined set of courses to meet all program requirements. The opposite: most programs or majors have at least one group of restrictive electives or options students can choose from to meet either course or unit requirements. Some programs may even "mix and match" requirements: they may have a group of restrictive electives for which the requirement is a number of units, while for another group the requirement is a number of courses. Another challenge is how to weight the role of the course in the program in the procedures (i.e., take into account whether the course is required, restrictive elective, or optional). The implication is that estimating the percentage of distance education (DE) for a program of study by simply dividing the total number of courses applicable to the program by the number of these that were approved or offered as DE will likely produce invalid or meaningless results.

The methodology for estimating the percentage of DE courses or units presented here is designed to take into account the flexibility that is often given to students to meet minimum program requirements and to weight the role of the course (required, elective, optional) in the final estimate. Procedures described here also address the issue of having to estimate the number of courses or units when programs use both types of requirements for different groups of electives.

Table 1 and Table 2 show results for two different programs: one with only required and elective courses; the other with required and elective courses, and two options (sets of alternative groups of courses to meet program requirements). In these two examples, courses were grouped based on their program role and the minimum number to meet the requirement for the group was identified. Then, for each group the actual number of courses offered as DE was compared to the minimum required. When the number for "Offered as DE" was larger than the minimum required, the number was replaced by the latter in the procedures (see "Offered as DE in calculation"). In sum, the procedures used, which can apply to units or courses, entail the following:

- Required courses have a direct impact in the final percentage estimate. For a program to be 100% DE, all required courses must be approved as DE, and each one must have at least one section offered through DE during the studied period.
- Elective courses do not have a direct impact in the final percentage estimate for they are analyzed as a group. The impact for the group in the final estimate is dependent on the extent to which the number offered

meets the minimum requirement for the group. Thus, not all elective courses need to be approved or offered as DE for a program to be 100% DE, as shown in Table 1.

- Programs with options are analyzed separately, as if each option were a separate program. Counts for the base (requirements and electives applicable to all options) and a given option are aggregated and the percentage for that option is then calculate, as shown in Table 2.

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

Course Program Role	Number of Courses			
	Available	Required	Offered as DE	Offered as DE used in Calculation
Required	5	5	5	5
Elective Group 1	10	5	2	2
Elective Group 2	8	2	2	2
Elective Group 3	9	3	5	3
Total	32	15	14	12
Percent for DE Instruction (Offered as DE used in Calculation/Required)				80%

Notes
DE: Distance Education.
Available: Total number of courses in the group, including required courses or all restrictive electives.
Required: Number of courses/units to meet requirement.
Offered as DE: Number of courses for which at least one section was offered through a distance education delivery mode only. It does not included hybrid (mixed methods) sections.
Offered as DE used in Calculation: Caps or sets an upper limit to the number in "Offered as DE" based on the number "Required."

Appendix B

Table 2. Calculating the Percent of DE Courses for a Program with Options

	Number of Courses			
Course Program Role	**Available**	**Required**	**Offered as DE**	**Offered as DE used in Calculation**
Required	5	5	5	5
Elective Group 1	10	4	6	4
Subtotal/Base	15	5	6	5
Option 1	4	2	2	2
Option 1-Total	19	7	8	7
Option 1-Percent DE (Offered as DE used in Calculation/Required)				**100%**
Option 2	5	2	1	1
Option 2-Total	20	7	7	6
Option 2-Percent DE (Offered as DE used in Calculation/Required)				**86%**

Notes

DE: Distance Education.

Available: Total number of courses in the group, including required courses or all restrictive electives.

Required: Number of courses/units to meet requirement.

Offered as DE: Number of courses for which at least one section was offered through a distance education delivery mode only. It does not included hybrid (mixed methods) sections.

Offered as DE used in Calculation: Caps or sets an upper limit to the number in "Offered as DE" based on the number "Required."

Total for the option includes counts for the base (required and restrictive elective courses applicable to all options) and counts specific to the option.

Appendix B

Estimating Program Required Units based on Course Requirements, and Vice Versa

Estimating the percentage of DE (Distance Education) for a certificate or degree program may require having to estimate the number of courses required by a group of electives for which the requirement is a number of units, or the opposite (i.e., estimating number of units required based on the number of courses for the group of electives). This section briefly describes procedures to do both.

The number of courses required for a group of electives for which the requirement in the college catalog is a given number of units can be estimated by dividing the minimum required number of units by the average number of units for all available courses in the group. In Table 3, Elective Group 1, this will be 20 (minimum units required) divided by 5 (average number of units for the 8 available courses). The result: 4 courses offered as DE will be required to meet minimum requirements for the group.

The number of units required for a group of electives for which the requirement in the college catalog is a given number of courses can be estimated by multiplying the average number of units for all electives in the group by the number of minimum required courses stated in the catalog. In Table 3, Elective Group 2, this will be 2.5 (average number of units for the 10 available courses) multiplied by 5 (minimum courses required). The result: 12.5 units offered as DE will be required to meet minimum requirements for the group.

Table 3. Number of Units or Courses Required by Group of Electives, Including Estimates Based on Average Number of Units

Program Course Role	Requirement Type	Total Available	Min Courses	Min Units	Average Number of Units
Electives Group 1	Units	8	4*	20	5*
Electives Group 2	Courses	10*	5	12.5*	2.5*

Notes
* Derived figures.
Requirement Type: Type of requirement for the group of electives stated in the college catalog.
Total Available: Total number of restrictive electives for the group.
Min Courses: Minimum number of courses to meet requirement for the group.
Min Units: Minimum number of units to meet requirement for the group.
Average Number of Units: Total number of units for all courses available to choose from the group divided by the total number of courses in the group.

Programs without Options: Count and Percentage for Courses Applicable to the Major Approved for or Offered through Distance Education by Program, De Anza College, 2017

| Title | Type | Program Min Courses | Distance Education Courses | | | |
| | | | Approved | | Offered | |
			Count	Percent	Count	Percent
Business Administration	AA	10	10	100	10	100
Business Administration	CEA	5	5	100	5	100
Business Administration for Transfer	AS-T	8	8	100	8	100
Entrepreneurship	CEA	5	5	100	5	100
Marketing Management	AA	11	11	100	11	100
Marketing Management	CEA	5	5	100	5	100
Liberal Arts: Business and Computer Info. Systems	AA	7	7	100	7	100
Network Basics	CEA	4	4	100	4	100
Database Design for Developers (Oracle)	CEA	6	6	100	6	100
Computer Aided Design - Mechanical	CEA	5	5	100	5	100
Liberal Arts: Social and Behavioral Sciences Emphasis	AA	7	7	100	7	100
Liberal Arts: Science, Math and Engineering Emphasis	AA	7	7	100	7	100
Liberal Arts: Arts and Letters Emphasis	AA	8	8	100	8	100
Management	AA	12	11	92	11	92
Accounting: Practice Emphasis	AA	11	10	91	10	91
Accounting: Practice Emphasis	CAA	11	10	91	10	91
Business Programming	AA	10	10	100	9	90
Business Programming	CAA	10	10	100	9	90
Environmental Resource Management and Pollution Prevention	CAA	7	7	100	6	86
Accounting	CEA	7	6	86	6	86
Management	CEA	5	4	80	4	80
Web Development	CEA	5	5	100	4	80
Network Administration	CEA	5	5	100	4	80
Enterprise Security Professional	CEA	5	5	100	4	80
Speech Communication	CEA	5	4	80	4	80
Environmental Resource Management and Pollution Prevention	AA	19	19	100	15	79

| Title | Type | Program Min Courses | Distance Education Courses | | | |
| | | | Approved | | Offered | |
			Count	Percent	Count	Percent
Network Administration	AA	9	9	100	7	78
Network Administration	CAA	9	9	100	7	78
Global Studies	AA	17	14	82	13	76
Programming in C/C++	CEA	4	3	75	3	75
Systems Programming	AA	9	7	78	6	67
Systems Programming	CAA	9	7	78	6	67
Network Programming	AA	9	8	89	6	67
Network Programming	CAA	9	8	89	6	67
Real Estate	AA	11	8	73	7	64
Journalism	AA	10	7	70	6	60
Programming in JAVA	CEA	5	5	100	3	60
UNIX/LINUX Operating System	CEA	5	5	100	3	60
Environmental Resource Management and Pollution Prevention	AS	29	27	93	17	59
Global Studies	CAA	9	6	67	5	56
Visual Basic Programming	CEA	4	3	75	2	50
Energy Management and Building Science	CEA	14	13	93	7	50
Leadership and Social Change	CEA	6	3	50	3	50
Environmental Resource Management and Pollution Prevention	CAA	23	21	91	11	48
Photographic Arts	AA	13	6	46	6	46
Wildlife Science Technician	CAA	16	16	100	7	44
Computer Science for Transfer	AS-T	9	4	44	4	44
Real Estate	CEA	7	4	57	3	43
Medical File Clerk	CEA	7	4	57	3	43
English	AA	7	4	57	3	43
Speech Communication	AA	7	6	86	3	43
Programming in PERL	CEA	5	3	60	2	40
Journalism for Transfer (Manual)	AA-T	8	6	75	3	38
Medical Records Clerk	CEA	8	4	50	3	38
Wildlife Science Technician	AA	19	19	100	7	37
Professional Photography	AA	14	5	36	5	36
Business Office Clerk	CEA	9	4	44	3	33
Kinesiology for Transfer (Manual)	AA-T	9	2	22	2	22
Licensed Vocational Nurse to Registered Nurse	AS	17	5	29	5	29
Child Development	CEA	7	2	29	2	29

Title	Type	Program Min Courses	Distance Education Courses			
			Approved		Offered	
			Count	Percent	Count	Percent
Communication Studies for Transfer	AA-T	7	5	71	2	29
Administration of Justice for Transfer	AS-T	7	2	29	2	29
Sociology for Transfer	AA-T	7	2	29	2	29
Wildlife Science Technician	CEA	8	8	100	2	25
Phlebotomy Technician I	CEA	9	3	33	2	22
Early Childhood Education for Transfer	AS-T	9	2	22	2	22
Project Management Practitioner	CEA	5	1	20	1	20
Child Development	CAA	10	2	20	2	20
Massage Therapy	CAA	16	3	19	3	19
Art History	AA	11	5	45	2	18
Art History	CAA	11	5	45	2	18
Medical Reception	CEA	12	3	25	2	17
Massage Therapy	AA	18	3	17	3	17
Early Intervention/Special Education Assistant	CAA	12	2	17	2	17
Early Childhood Mental Health	CEA	6	1	17	1	17
Film/TV: Screenwriting	AA	13	2	15	2	15
Registered Nurse	AS	33	5	15	5	15
Child Development	AA	13	2	15	2	15
Medical Secretary	CAA	21	8	38	3	14
Graphic and Interactive Design	AA	15	3	20	2	13
Graphic and Interactive Design	CAA	15	3	20	2	13
Paralegal Studies	AA	15	2	13	2	13
Paralegal Studies	CAA	15	2	13	2	13
Massage Therapy	CEA	9	1	11	1	11
Product Model Making	AS	10	4	40	1	10
Product Model Making	CAA	10	4	40	1	10
Private Security	CAA	10	1	10	1	10
Private Security	AA	11	1	9	1	9
Film/TV: Animation	AA	13	2	15	1	8
Lab Assisting	CEA	12	2	17	1	8
Insurance and Coding	CEA	12	2	17	1	8
Law Enforcement	AA	12	1	8	1	8
Corrections/Probation	AA	13	1	8	1	8
Medical Transcription	CEA	14	2	14	1	7
Music	AA	18	1	6	1	6
Medical Assisting	AA	34	7	21	2	6
Medical Assisting	CAA	34	7	21	2	6
Film/TV: Production	AA	11	0	0	0	0

Appendix C

Title	Type	Program Min Courses	Distance Education Courses			
			Approved		Offered	
			Count	Percent	Count	Percent
Film/TV: Production	CAA	11	0	0	0	0
Film/TV: Production	CEA	6	0	0	0	0
Automotive Technology: Automotive Machining and Engine Repair	AS	9	0	0	0	0
Automotive Powertrain Technology	AS	7	0	0	0	0
Automotive Machining and Engine Repair Technology	AS	7	0	0	0	0
Automotive Technology: Automotive Engine Performance	AS	9	0	0	0	0
Automotive Technology: Automotive Chassis and Powertrain	AS	12	0	0	0	0
Advanced Engine Performance Technology	AS	11	0	0	0	0
Advanced Engine Performance Technology	CAA	11	0	0	0	0
Automotive Machining and Engine Repair Technology	CAA	7	0	0	0	0
Automotive Powertrain Technology	CAA	7	0	0	0	0
Automotive Technology: Automotive Chassis and Powertrain	CAA	12	0	0	0	0
Automotive Technology: Automotive Engine Performance	CAA	9	0	0	0	0
Automotive Technology: Automotive Machining and Engine Repair	CAA	9	0	0	0	0
Smog Technician	CEA	3	0	0	0	0
Advanced Automotive Technology	CEA	5	0	0	0	0
Automotive Machining and Engine Repair Technology	CEA	2	0	0	0	0
Automotive Powertrain Technology	CEA	3	0	0	0	0
Automotive Chassis Technology	CEA	3	0	0	0	0
Advanced Engine Performance Technology	CEA	4	0	0	0	0
Intermediate Engine Performance Technology	CEA	3	0	0	0	0
Basic Engine Performance Technology	CEA	4	0	0	0	0
CNC Research and Development Machinist	AS	13	3	23	0	0
CNC Machinist	CAA	12	3	25	0	0
CNC Machinist	AS	12	3	25	0	0

Appendix C

| Title | Type | Program Min Courses | Distance Education Courses | | | |
| | | | Approved | | Offered | |
			Count	Percent	Count	Percent
CNC Research and Development Machinist	CAA	13	3	23	0	0
CNC Programming - CAD-CAM	CEA	4	3	75	0	0
CNC Machinist	CEA	4	0	0	0	0
Sculpture	AA	12	1	8	0	0
Ceramics	AA	11	1	9	0	0
Professional Photography	CEA	6	0	0	0	0
Graphic and Interactive Design	CEA	6	1	17	0	0
Mandarin	CAA	7	0	0	0	0
Mandarin	CEA	4	0	0	0	0
Clinical Laboratory Assistant	CEA	8	0	0	0	0
Mathematics for Transfer	AS-T	6	0	0	0	0

Notes

Data includes only programs with no options (alternative set of courses to meet program requirements).
Type includes: AA, Associate of Arts; AS, Associate of Science; AA-T, Associate of Arts for Transfer; AS-T, Associate of Science for Transfer; CAA, Certificate of Achievement-Advanced; and CEA, Certificate of Achievement.
Program Min Courses: Estimated number of courses to meet program requirements based on number of required or elective courses, or units (courses required based number of units).
Approved: Based on course scheduled type approved by curriculum committee (Banner schedule code beginning with '5', '6' or '7'). The Hybrid schedule type is not included.
Offered: Based on courses offered in 2015-16 or 2016-17 (enrollment greater than zero) for which all sessions or meetings were scheduled online.
Course count and the numerator for the percentage do not exceed the minimum number of courses.

Appendix D

Program without Options: Count and Percentage for Estimated Number of Units Applicable to the Major Approved for or Offered through Distance Education by Program, De Anza College, 2017

Title	Type	Program Min Units	Distance Education Units Approved Count	Approved Percent	Offered Count	Offered Percent
Business Administration	AA	49.5	49.5	100	49.5	100
Business Administration for Transfer	AS-T	37.5	37.5	100	37.5	100
Business Administration	CEA	24.5	24.5	100	24.5	100
Entrepreneurship	CEA	24.0	24.0	100	24.0	100
Marketing Management	AA	53.0	53.0	100	53.0	100
Marketing Management	CEA	24.0	24.0	100	24.0	100
Liberal Arts: Business and Computer Info. Systems	AA	27.0	27.0	100	27.0	100
Network Basics	CEA	18.5	18.5	100	18.5	100
Database Design for Developers (Oracle)	CEA	25.3	25.3	100	25.3	100
Computer Aided Design - Mechanical	CEA	18.0	18.0	100	18.0	100
Liberal Arts: Social and Behavioral Sciences Emphasis	AA	27.0	27.0	100	27.0	100
Liberal Arts: Science, Math and Engineering Emphasis	AA	27.0	27.0	100	27.0	100
Liberal Arts: Arts and Letters Emphasis	AA	27.0	27.0	100	27.0	100
Accounting: Practice Emphasis	AA	45.0	43.0	96	43.0	96
Accounting: Practice Emphasis	CAA	45.0	43.0	96	43.0	96
Accounting	CEA	26.0	24.0	92	24.0	92
Management	AA	53.0	49.0	92	49.0	92
Business Programming	AA	45.3	45.3	100	40.8	90
Business Programming	CAA	45.3	45.3	100	40.8	90
Management	CEA	24.0	20.0	83	20.0	83
Environmental Resource Management and Pollution Prevention	CAA	20.0	20.0	100	16.0	80
Enterprise Security Professional	CEA	23.0	23.0	100	18.5	80
Network Administration	CEA	22.5	22.5	100	18.0	80
Network Administration	AA	40.8	40.8	100	32.3	79
Network Administration	CAA	40.8	40.8	100	32.3	79
Environmental Resource Management and Pollution Prevention	AA	40.0	40.0	100	30.0	75

| Title | Type | Program Min Units | Distance Education Units | | | |
| | | | Approved | | Offered | |
			Count	Percent	Count	Percent
Programming in C/C++	CEA	18.0	13.5	75	13.5	75
Speech Communication	CEA	20.0	15.0	75	15.0	75
Global Studies	AA	68.0	54.0	79	50.0	74
Web Development	CEA	20.8	20.8	100	15.0	72
Systems Programming	AA	41.0	32.0	78	27.5	67
Systems Programming	CAA	41.0	32.0	78	27.5	67
Network Programming	AA	41.4	36.9	89	27.9	67
Network Programming	CAA	41.4	36.9	89	27.9	67
Real Estate	AA	45.0	33.0	73	29.0	64
UNIX/LINUX Operating System	CEA	22.5	22.5	100	13.5	60
Programming in JAVA	CEA	22.5	22.5	100	13.5	60
Journalism	AA	28.7	19.7	69	16.7	58
Leadership and Social Change	CEA	14.0	8.0	57	8.0	57
Environmental Resource Management and Pollution Prevention	AS	50.0	47.0	94	28.0	56
Medical File Clerk	CEA	22.5	14.0	62	12.0	53
Global Studies	CAA	36.0	22.0	61	18.0	50
Visual Basic Programming	CEA	18.5	13.5	73	9.0	49
Medical Records Clerk	CEA	24.5	14.0	57	12.0	49
Business Office Clerk	CEA	25.0	14.0	56	12.0	48
Photographic Arts	AA	43.0	20.0	47	20.0	47
English	AA	29.2	17.2	59	13.0	45
Journalism for Transfer (Manual)	AA-T	27.0	21.0	78	12.0	44
Professional Photography	AA	44.0	19.0	43	19.0	43
Speech Communication	AA	33.0	28.0	85	14.0	42
Computer Science for Transfer	AS-T	45.5	18.5	41	18.5	41
Programming in PERL	CEA	22.5	13.5	60	9.0	40
Real Estate	CEA	25.0	13.0	52	9.0	36
Wildlife Science Technician	CAA	46.0	46.0	100	16.0	35
Energy Management and Building Science	CEA	20.0	18.0	90	7.0	35
Phlebotomy Technician I	CEA	22.0	9.5	43	7.5	34
Environmental Resource Management and Pollution Prevention	CAA	33.0	30.0	91	11.0	33
Medical Reception	CEA	24.0	9.5	40	7.5	31
Licensed Vocational Nurse to Registered Nurse	AS	68.0	21.0	31	21.0	31
Kinesiology for Transfer (Manual)	AA-T	32.0	9.0	28	9.0	28

Title	Type	Program Min Units	Distance Education Units			
			Approved		Offered	
			Count	Percent	Count	Percent
Child Development	CEA	26.0	8.0	31	8.0	31
Wildlife Science Technician	AA	53.0	53.0	100	16.0	30
Administration of Justice for Transfer	AS-T	28.3	8.3	29	8.3	29
Sociology for Transfer	AA-T	28.0	8.0	29	8.0	29
Medical Secretary	CAA	44.5	20.5	46	12.5	28
Communication Studies for Transfer	AA-T	33.0	23.0	70	9.0	27
Early Childhood Education for Transfer	AS-T	37.0	8.0	22	8.0	22
Project Management Practitioner	CEA	19.9	3.9	20	3.9	20
Child Development	CAA	40.0	8.0	20	8.0	20
Wildlife Science Technician	CEA	26.0	26.0	100	5.0	19
Art History	AA	42.0	20.0	48	8.0	19
Art History	CAA	42.0	20.0	48	8.0	19
Registered Nurse	AS	113.0	21.0	19	21.0	19
Early Childhood Mental Health	CEA	21.0	4.0	19	4.0	19
Massage Therapy	AA	52.0	9.0	17	9.0	17
Child Development	AA	51.0	8.0	16	8.0	16
Early Intervention/Special Education Assistant	CAA	45.0	7.0	16	7.0	16
Insurance and Coding	CEA	24.0	5.0	21	3.0	13
Massage Therapy	CAA	44.5	6.0	13	6.0	13
Medical Assisting	AA	62.5	15.5	25	7.5	12
Medical Assisting	CAA	62.5	15.5	25	7.5	12
Lab Assisting	CEA	25.5	5.0	20	3.0	12
Medical Transcription	CEA	26.0	5.0	19	3.0	12
Private Security	AA	38.0	4.0	11	4.0	11
Private Security	CAA	37.0	4.0	11	4.0	11
Film/TV: Animation	AA	44.0	4.0	9	4.0	9
Product Model Making	AS	46.0	19.0	41	4.0	9
Product Model Making	CAA	46.0	19.0	41	4.0	9
Music	AA	46.0	4.0	9	4.0	9
Law Enforcement	AA	45.5	4.0	9	4.0	9
Film/TV: Screenwriting	AA	48.0	4.0	8	4.0	8
Massage Therapy	CEA	25.5	2.0	8	2.0	8
Paralegal Studies	AA	48.0	4.0	8	4.0	8
Paralegal Studies	CAA	48.0	4.0	8	4.0	8
Corrections/Probation	AA	49.0	4.0	8	4.0	8
Graphic and Interactive Design	AA	54.0	7.0	13	3.0	6
Graphic and Interactive Design	CAA	54.0	7.0	13	3.0	6

Title	Type	Program Min Units	Distance Education Units			
			Approved		**Offered**	
			Count	Percent	Count	Percent
Film/TV: Production	AA	42.3	0.0	0	0.0	0
Film/TV: Production	CAA	42.3	0.0	0	0.0	0
Film/TV: Production	CEA	24.0	0.0	0	0.0	0
Automotive Technology: Automotive Engine Performance	AS	50.0	0.0	0	0.0	0
Advanced Engine Performance Technology	AS	58.0	0.0	0	0.0	0
Automotive Powertrain Technology	AS	44.5	0.0	0	0.0	0
Automotive Technology: Automotive Chassis and Powertrain	AS	49.5	0.0	0	0.0	0
Automotive Machining and Engine Repair Technology	AS	49.0	0.0	0	0.0	0
Automotive Technology: Automotive Machining and Engine Repair	AS	44.0	0.0	0	0.0	0
Automotive Technology: Automotive Engine Performance	CAA	50.0	0.0	0	0.0	0
Automotive Machining and Engine Repair Technology	CAA	49.0	0.0	0	0.0	0
Automotive Technology: Automotive Machining and Engine Repair	CAA	44.0	0.0	0	0.0	0
Automotive Technology: Automotive Chassis and Powertrain	CAA	49.5	0.0	0	0.0	0
Automotive Powertrain Technology	CAA	44.5	0.0	0	0.0	0
Advanced Engine Performance Technology	CAA	58.0	0.0	0	0.0	0
Basic Engine Performance Technology	CEA	22.0	0.0	0	0.0	0
Automotive Powertrain Technology	CEA	22.5	0.0	0	0.0	0
Advanced Automotive Technology	CEA	22.5	0.0	0	0.0	0
Intermediate Engine Performance Technology	CEA	18.0	0.0	0	0.0	0
Advanced Engine Performance Technology	CEA	18.0	0.0	0	0.0	0
Automotive Machining and Engine Repair Technology	CEA	18.0	0.0	0	0.0	0
Smog Technician	CEA	18.5	0.0	0	0.0	0
Automotive Chassis Technology	CEA	18.0	0.0	0	0.0	0

Appendix D

| Title | Type | Program Min Units | Distance Education Units | | | |
| | | | Approved | | Offered | |
			Count	Percent	Count	Percent
CNC Research and Development Machinist	AS	56.5	15.0	27	0.0	0
CNC Machinist	AS	54.5	15.0	28	0.0	0
CNC Machinist	CAA	54.5	15.0	28	0.0	0
CNC Research and Development Machinist	CAA	56.5	15.0	27	0.0	0
CNC Programming - CAD-CAM	CEA	20.0	15.0	75	0.0	0
CNC Machinist	CEA	19.5	0.0	0	0.0	0
Sculpture	AA	48.0	4.0	8	0.0	0
Ceramics	AA	42.0	4.0	10	0.0	0
Professional Photography	CEA	18.0	0.0	0	0.0	0
Graphic and Interactive Design	CEA	23.0	4.0	17	0.0	0
Mandarin	CAA	34.0	0.0	0	0.0	0
Mandarin	CEA	19.0	0.0	0	0.0	0
Clinical Laboratory Assistant	CEA	24.0	0.0	0	0.0	0
Mathematics for Transfer	AS-T	30.0	0.0	0	0.0	0

Notes

Data includes only programs with no options (alternative set of courses to meet program requirements).

Type includes: AA, Associate of Arts; AS, Associate of Science; AA-T, Associate of Arts for Transfer; AS-T, Associate of Science for Transfer; CAA, Certificate of Achievement-Advanced; and CEA, Certificate of Achievement.

Program Min Units: Estimated number of units to meet program requirements based on number of required or elective units, or courses (number of units based on number of courses required).

Approved: Based on course scheduled type approved by curriculum committee (Banner schedule code beginning with '5', '6' or '7'). The Hybrid schedule type is not included.

Offered: Based on courses offered in 2015-16 or 2016-17 (enrollment greater than zero) for which all sessions or meetings were scheduled online.

Units count and the numerator for the percentage do not exceed the minimum number of units.

Program with Options: Count and Percentage for Estimated Number of Courses Applicable to the Major Approved for or Offered through Distance Education by Program, De Anza College, 2017

| Title | Type | Option ID | Program Min Courses | Distance Education Courses | | | |
| | | | | Approved | | Offered | |
				Count	Percent	Count	Percent
Biological Sciences	AS	OPTION 1	9	0	0	0	0
Biological Sciences	AS	OPTION 2	9	0	0	0	0
Biological Sciences	AS	OPTION 3	9	0	0	0	0
Enterprise Security Professional	AA	OPTION 1	8	8	100	5	63
Enterprise Security Professional	AA	OPTION 2	7	7	100	5	71
Enterprise Security Professional	CAA	OPTION 1	8	8	100	5	63
Enterprise Security Professional	CAA	OPTION 2	7	7	100	5	71
Painting	AA	OPTION 1	10	1	10	0	0
Painting	AA	OPTION 2	10	1	10	0	0
Painting	AA	OPTION 3	10	1	10	0	0
Medical Laboratory Technology	AA	OPTION 1	24	0	0	0	0
Medical Laboratory Technology	AA	OPTION 2	24	0	0	0	0
Medical Laboratory Technology	CAA	OPTION 1	24	0	0	0	0
Medical Laboratory Technology	CAA	OPTION 2	24	0	0	0	0
English for Transfer (Manual)	AA-T	OPTION 1	7	4	57	2	29
English for Transfer (Manual)	AA-T	OPTION 2	7	3	52	3	43
Intercultural Studies (Only option 1 was tested)	AA	OPTION 1	11	10	91	8	73
Intercultural Studies (Only option 1 was tested)	CAA	OPTION 1	11	10	91	8	73
History for Transfer	AS-T	OPTION 1	8	8	100	7	88
History for Transfer	AS-T	OPTION 2	8	5	63	5	63
Political Science for Transfer (Only option 1 was tested)	AA-T	OPTION 1	7	6	86	6	86

Notes

Data includes programs with at least one option (alternative set of courses to meet program requirements).

Type includes: AA, Associate of Arts; AS, Associate of Science; AA-T, Associate of Arts for Transfer; AS-T, Associate of Science for Transfer; CAA, Certificate of Achievement-Advanced; and CEA, Certificate of Achievement.

Program Min Courses: Estimated number of courses to meet program requirements based on number of required or elective courses, or units (courses required based number of units).

Approved: Based on course scheduled type approved by curriculum committee (Banner schedule code beginning with '5', '6' or '7'). The Hybrid schedule type is not included.

Offered: Based on courses offered in 2015-16 or 2016-17 (enrollment greater than zero) for which all sessions or meetings were scheduled online.

Course count and the numerator for the percentage do not exceed the minimum number of courses.

Manual: Given the variety of choices for available set of courses, counts and percentages were manually calculated.

Only option 1 was tested: When multiple and complex choices of set of courses were provided within the program, only the one with the most flexibility for courses was tested or included in the analyses.

Program with Options: Count and Percentage for Estimated Number of Units Applicable to the Major Approved for or Offered through Distance Education by Program, De Anza College, 2017

Title	Type	Option ID	Program Min Units	Approved Count	Approved Percent	Offered Count	Offered Percent
				Distance Education Units			
				Approved		**Offered**	
Biological Sciences	AS	OPTION 1	48.0	0.0	0	0.0	0
Biological Sciences	AS	OPTION 2	48.0	0.0	0	0.0	0
Biological Sciences	AS	OPTION 3	51.0	0.0	0	0.0	0
Enterprise Security Professional	AA	OPTION 1	32.5	32.5	100	21.5	66
Enterprise Security Professional	AA	OPTION 2	32.0	32.0	100	23.0	72
Enterprise Security Professional	CAA	OPTION 1	32.5	32.5	100	21.5	66
Enterprise Security Professional	CAA	OPTION 2	32.0	32.0	100	23.0	72
Painting	AA	OPTION 1	40.0	4.0	10	0.0	0
Painting	AA	OPTION 2	40.0	4.0	10	0.0	0
Painting	AA	OPTION 3	40.0	4.0	10	0.0	0
Medical Laboratory Technology	AA	OPTION 1	91.0	0.0	0	0.0	0
Medical Laboratory Technology	AA	OPTION 2	88.0	0.0	0	0.0	0
Medical Laboratory Technology	CAA	OPTION 1	91.0	0.0	0	0.0	0
Medical Laboratory Technology	CAA	OPTION 2	88.0	0.0	0	0.0	0
English for Transfer (Manual)	AA-T	OPTION 1	30	18	60	9.0	30
English for Transfer (Manual)	AA-T	OPTION 2	29	17	59	13.0	45
Intercultural Studies (Only one option was tested)	AA	OPTION 1	40.0	36.0	90	28.0	70
Intercultural Studies (Only one option was tested)	CAA	OPTION 1	40.0	36.0	90	28.0	70
History for Transfer	AS-T	OPTION 1	32.0	32.0	100	28.0	88
History for Transfer	AS-T	OPTION 2	32.0	20.0	63	20.0	63
Political Science for Transfer (Only one option was tested)	AA-T	OPTION 1	29.0	25.5	88	25.5	88

Notes

Data includes programs with at least one option (alternative set of courses to meet program requirements).

Type includes: AA, Associate of Arts; AS, Associate of Science; AA-T, Associate of Arts for Transfer; AS-T, Associate of Science for Transfer; CAA, Certificate of Achievement-Advanced; and CEA, Certificate of Achievement.

Program Min Units: Estimated number of units to meet program requirements based on number of required or elective units, or courses (units required based number of courses).

Approved: Based on course scheduled type approved by curriculum committee (Banner schedule code beginning with '5', '6' or '7'). The Hybrid schedule type is not included.

Offered: Based on courses offered in 2015-16 or 2016-17 (enrollment greater than zero) for which all sessions or meetings were scheduled online.

Unit count and the numerator for the percentage do not exceed the minimum number of units.

Manual: Given the variety of choices for available set of courses, counts and percentages were manually calculated.

Only option 1 was tested: When multiple and complex choices of set of courses were provided within the program, only the one with the most flexibility for courses was tested or included in the analyses.

Appendix G

General Education: Count and Percentage of Minimum Course Requirement Approved for or Offered through Distance Education by GE Program and Area-Discipline, De Anza College, 2017

Program Area-Discipline	Min Courses	Distance Education Courses			
		Approved		Offered	
		Count	Percent	Count	Percent
CSU General Education Breadth					
CSUGE A1 Oral Communication	1	0	0	0	0
CSUGE A2 Written Communication	1	1	100	1	100
CSUGE A3 Critical Thinking	1	1	100	1	100
CSUGE B1 Physical Science	1	1	100	1	100
CSUGE B2 Life Science	1	1	100	1	100
CSUGE B3 Lab Activity	1	1	100	0	0
CSUGE B4 Mathematics	1	1	100	1	100
CSUGE C1 Arts	1	1	100	1	100
CSUGE C2 Humanities	1	1	100	1	100
CSUGE D0 Sociology/Criminology	1	1	100	1	100
CSUGE D1 Anthro/Archeology	1	1	100	1	100
CSUGE D2 Economics	1	1	100	1	100
CSUGE D3 Ethnic Studies	1	1	100	1	100
CSUGE D4 Gender Studies	1	1	100	1	100
CSUGE D5 Geography	1	1	100	1	100
CSUGE D6 History	1	1	100	1	100
CSUGE D7 Interdisc Soc/Beh Sci	1	1	100	1	100
CSUGE D8 Political Science	1	1	100	1	100
CSUGE D9 Psychology	1	1	100	1	100
CSUGE D American History	2	2	100	2	100
CSUGE E PE Activity	1	1	100	0	0
CSUGE E Non-PE Activity	1	1	100	1	100

Notes

Total minimum units required for CSUGE, 58 quarter units.

Having at least one course from each discipline is not required. For example, area D only requires 12-15 units (3 to 5 courses) from at least 2 different disciplines.

Appendix G

Program Area	Min Courses	Distance Education Courses			
		Approved		Offered	
		Count	Percent	Count	Percent
DA General Education Breadth Requirements AA/AS					
AA/AS English Composition	1	1	100	1	100
AA/AS Oral Communication	1	0	0	0	0
AA/AS Critical Thinking	2	2	100	2	100
AA/AS Natural Sciences	1	1	100	1	100
AA/AS Arts	1	1	100	1	100
AA/AS Humanities	1	1	100	1	100
AA/AS Behavioral Science	1	1	100	1	100
AA/AS History and Society	1	1	100	1	100
AA/AS Soc Behavioral Sciences	1	1	100	0	0
AA/AS PE Activity	1	1	100	0	0
AA/AS PE Non-Activity	1	1	100	1	100
AA/AS Intercultural Studies, Course Requirement	1	1	100	1	100

Notes

Total minimum units required De Anza GE Breadth: 32 quarter units.

Having at least one course from each discipline is not required. For example, Social/Behavioral Science area only requires 2 courses (8-9 units).

| Program Area | Min Courses | Distance Education Courses | | | |
| | | Approved | | Offered | |
		Count	Percent	Count	Percent
		Intersegmental GE Transfer Curr for CSU			
IGETC 1A English Composition	1	1	100	1	100
IGETC 1B Crit Thinking/Comp	1	1	100	1	100
IGETC 1C Oral Communication	1	0	0	0	0
IGETC 2 Mathematical Concepts	1	1	100	1	100
IGETC 3A Arts	1	1	100	1	100
IGETC 3B Humanities	1	1	100	1	100
IGETC 4A Anthro./Archeology	1	1	100	1	100
IGETC 4B Economics	1	1	100	1	100
IGETC 4C Ethnic Studies	1	1	100	1	100
IGETC 4D Gender Studies	1	1	100	1	100
IGETC 4E Geography	1	1	100	1	100
IGETC 4F History	1	1	100	1	100
IGETC 4G Interdisc Soc/Beh Sci	1	1	100	1	100
IGETC 4H Political Science	1	1	100	1	100
IGETC 4I Psychology	1	1	100	1	100
IGETC 4J Sociology/Criminology	1	1	100	1	100
IGETC 5A Physical Sciences	1	1	100	1	100
IGETC 5B Biological Sciences	1	1	100	1	100
IGETC 5C Science Laboratory	1	1	100	0	0

Notes

Total minimum units required for IGETC, 47 quarter units.

Having at least one course from each discipline is not required. For example, area IGETC 4 only requires 3 courses (12-15 units) from at least 2 different disciplines.

Appendix G

| Program Area | Min Courses | Distance Education Courses | | | |
| | | Approved | | Offered | |
		Count	Percent	Count	Percent
Intersegmental GE Transfer Curr for UC					
IGETC 1A English Composition	1	1	100	1	100
IGETC 1B Crit Thinking/Comp	1	1	100	1	100
IGETC 2 Mathematical Concepts	1	1	100	1	100
IGETC 3A Arts	1	1	100	1	100
IGETC 3B Humanities	1	1	100	1	100
IGETC 4A Anthro/Archeology	1	1	100	1	100
IGETC 4B Economics	1	1	100	1	100
IGETC 4C Ethnic Studies	1	1	100	1	100
IGETC 4D Gender Studies	1	1	100	1	100
IGETC 4E Geography	1	1	100	1	100
IGETC 4F History	1	1	100	1	100
IGETC 4G Interdisc Soc/Beh Sci	1	1	100	1	100
IGETC 4H Political Science	1	1	100	1	100
IGETC 4I Psychology	1	1	100	1	100
IGETC 4J Sociology/Criminology	1	1	100	1	100
IGETC 5A Physical Sciences	1	1	100	1	100
IGETC 5B Biological Sciences	1	1	100	1	100
IGETC 5C Science Laboratory	1	1	100	0	0
IGETC 6 Non-English Language	1	1	100	1	100

Notes

Total minimum units required for IGETC, 47 quarter units.

Having at least one course from each discipline is not required. For example, area IGETC 4 only requires 3 courses (12-15 units) from at least 2 different disciplines.

General Education: Count and Percentage of Minimum Unit Requirement Approved for or Offered through Distance Education by GE Program and Area-Discipline, De Anza College, 2017

Program Area-Discipline	Min Units	Distance Education Units			
		Approved		Offered	
		Count	Percent	Count	Percent
CSU General Education Breadth					
CSUGE A1 Oral Communication	5.0	0.0	0	0.0	0
CSUGE A2 Written Communication	5.0	5.0	100	5.0	100
CSUGE A3 Critical Thinking	4.8	4.8	100	4.8	100
CSUGE B1 Physical Science	4.9	4.9	100	4.9	100
CSUGE B2 Life Science	5.1	5.1	100	5.1	100
CSUGE B3 Lab Activity	4.7	4.7	100	0.0	0
CSUGE B4 Mathematics	4.9	4.9	100	4.9	100
CSUGE C1 Arts	4.0	4.0	100	4.0	100
CSUGE C2 Humanities	4.5	4.5	100	4.5	100
CSUGE D0 Sociology/Criminology	4.0	4.0	100	4.0	100
CSUGE D1 Anthro/Archeology	4.0	4.0	100	4.0	100
CSUGE D2 Economics	4.1	4.1	100	4.1	100
CSUGE D3 Ethnic Studies	4.0	4.0	100	4.0	100
CSUGE D4 Gender Studies	4.0	4.0	100	4.0	100
CSUGE D5 Geography	4.0	4.0	100	4.0	100
CSUGE D6 History	4.0	4.0	100	4.0	100
CSUGE D7 Interdisc Soc/Beh Sci	4.0	4.0	100	4.0	100
CSUGE D8 Political Science	4.2	4.2	100	4.2	100
CSUGE D9 Psychology	4.2	4.2	100	4.2	100
CSUGE D American History	8.0	8.0	100	8.0	100
CSUGE E PE Activity	1.1	1.1	100	0.0	0
CSUGE E Non-PE Activity	3.9	3.9	100	3.9	100

Notes

Total minimum units required for CSUGE, 58 quarter units.

Having at least one course from each discipline is not required. For example, area D only requires 12-15 units (3 to 5 courses) from at least 2 different disciplines.

Appendix H

Program Area	Min Units	Distance Education Units			
		Approved		Offered	
		Count	Percent	Count	Percent
DA General Education Breadth Requirements AA/AS					
AA/AS English Composition	5.0	5.0	100	5.0	100
AA/AS Oral Communication	5.0	0.0	0	0.0	0
AA/AS Critical Thinking	5.0	5.0	100	5.0	100
AA/AS Natural Sciences	4.4	4.4	100	4.4	100
AA/AS Arts	4.0	4.0	100	4.0	100
AA/AS Humanities	4.5	4.5	100	4.5	100
AA/AS Behavioral Science	4.1	4.1	100	4.1	100
AA/AS History and Society	4.0	4.0	100	4.0	100
AA/AS Soc Behavioral Sciences	4.1	4.1	100	0.0	0
AA/AS PE Activity	1.1	1.1	100	0.0	0
AA/AS PE Non-Activity	3.6	3.6	100	3.6	100
AA/AS Intercultural Studies, Course Requirement	3.9	3.9	100	3.9	100

Notes

Total minimum units required De Anza GE Breadth: 32 quarter units.

Having at least one course from each discipline is not required. For example, Social/Behavioral Science area only requires 2 courses (8-9 units).

		Distance Education Units			
		Approved		Offered	
Program Area	Min Units	Count	Percent	Count	Percent
Intersegmental GE Transfer Curr for CSU					
IGETC 1A English Composition	5.0	5.0	100	5.0	100
IGETC 1B Crit Thinking/Comp	5.0	5.0	100	5.0	100
IGETC 1C Oral Communication	5.0	0.0	0	0.0	0
IGETC 2 Mathematical Concepts	4.9	4.9	100	4.9	100
IGETC 3A Arts	4.0	4.0	100	4.0	100
IGETC 3B Humanities	4.3	4.3	100	4.3	100
IGETC 4A Anthro./Archeology	4.0	4.0	100	4.0	100
IGETC 4B Economics	4.0	4.0	100	4.0	100
IGETC 4C Ethnic Studies	4.0	4.0	100	4.0	100
IGETC 4D Gender Studies	4.0	4.0	100	4.0	100
IGETC 4E Geography	4.0	4.0	100	4.0	100
IGETC 4F History	4.0	4.0	100	4.0	100
IGETC 4G Interdisc Soc/Beh Sci	4.0	4.0	100	4.0	100
IGETC 4H Political Science	4.0	4.0	100	4.0	100
IGETC 4I Psychology	4.2	4.2	100	4.2	100
IGETC 4J Sociology/Criminology	4.0	4.0	100	4.0	100
IGETC 5A Physical Sciences	4.7	4.7	100	4.7	100
IGETC 5B Biological Sciences	4.7	4.7	100	4.7	100
IGETC 5C Science Laboratory	4.7	4.7	100	0.0	0

Notes

Total minimum units required for IGETC, 47 quarter units.

Having at least one course from each discipline is not required. For example, Social/Behavioral Science area only requires 2 courses (8-9 units).

| Program Area | Min Units | Distance Education Units | | | |
| | | Approved | | Offered | |
		Count	Percent	Count	Percent
Intersegmental GE Transfer Curr for UC					
IGETC 1A English Composition	5.0	5.0	100	5.0	100
IGETC 1B Crit Thinking/Comp	5.0	5.0	100	5.0	100
IGETC 2 Mathematical Concepts	4.9	4.9	100	4.9	100
IGETC 3A Arts	4.0	4.0	100	4.0	100
IGETC 3B Humanities	4.3	4.3	100	4.3	100
IGETC 4A Anthro./Archeology	4.0	4.0	100	4.0	100
IGETC 4B Economics	4.0	4.0	100	4.0	100
IGETC 4C Ethnic Studies	4.0	4.0	100	4.0	100
IGETC 4D Gender Studies	4.0	4.0	100	4.0	100
IGETC 4E Geography	4.0	4.0	100	4.0	100
IGETC 4F History	4.0	4.0	100	4.0	100
IGETC 4G Interdisc Soc/Beh Sci	4.0	4.0	100	4.0	100
IGETC 4H Political Science	4.0	4.0	100	4.0	100
IGETC 4I Psychology	4.2	4.2	100	4.2	100
IGETC 4J Sociology/Criminology	4.0	4.0	100	4.0	100
IGETC 5A Physical Sciences	4.7	4.7	100	4.7	100
IGETC 5B Biological Sciences	4.7	4.7	100	4.7	100
IGETC 5C Science Laboratory	4.7	4.7	100	0.0	0
IGETC 6 Non-English Language	5.0	5.0	100	5.0	100

Notes

Total minimum units required for IGETC, 47 quarter units.

Having at least one course from each discipline is not required. For example, Social/Behavioral Science area only requires 2 courses (8-9 units).