
*The Mesa Community College
Program to Assess Student Learning*

Annual Report AY 2020-2021

Prepared by:
Office of Institutional Effectiveness

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Mesa Community College is part of the Maricopa County Community College District,
an EEO/AA Institution

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I. Introduction and Background

History and Overview of Assessment

Mesa Community College (MCC) is committed to providing quality education for its students as evidenced in our institutional mission: “We create an inclusive and vibrant learning community where everyone is supported to achieve success.” The college recognizes the need for accurate assessment data to use in evaluating student learning and the effectiveness of the College in meeting its mission. MCC accepts the proposition that the value of assessment is found in the use of the assessment data to improve student learning.

MCC conducts student outcomes assessment at the institutional (ISLO), program/pathway (PSLO), and course (CSLO) levels. Assessment efforts are led via collaborative efforts of the Vice President of Academic Affairs (VPAA), Director of Assessment, Faculty Senate Student Outcomes Committee (SOC), and the Office of Institutional Effectiveness.

Starting in the late 1990s, MCC’s student learning outcomes were assessed college-wide through “Assessment Week.” In the Fall 2012, challenges in the assessment work were identified, motivating revisions to our institutional student learning outcomes and assessment method. SOC and Faculty Senate approved a revision of the general education outcomes to better focus on student success. MCC’s ISLOs became MCC’s 4Cs: Communication, Civic Engagement, Critical Thinking, and Cultural and Global Engagement, with each outcome having several criteria. MCC’s 4Cs uses standardized scoring guidelines assessment instead of standardized assessment test. This allows instructors to apply the assessment results to their course content and pedagogical practice.

In 2017, MCC developed Guided Pathways for its academic programs, which were adopted and expanded by the District in 2018. Each guided pathways program map includes Program-level Student Learning Outcomes (PSLOs).

In 2018, MCC hired an Assessment Director to lead the collaborative development and implementation of a comprehensive plan for assessing student learning outcomes at the course, program, educational pathway, and institutional levels.

Organizational Structure for Assessment

Assessment efforts are led via collaborative efforts of the Vice President of Academic Affairs (VPAA), Director of Assessment, Faculty Senate Student Outcomes Committee (SOC), and the Office of Institutional Effectiveness.

The Student Outcomes Committee is composed of faculty from many disciplines, and confers regularly with the Faculty Senate. The Assessment Director, and the Dean and Director of OIE serve on the committee to ensure that assessment processes and methodologies reflect good practice, including adherence to guidelines for ethical research. Since 2015, a primary focus of SOC has been the assessment of the Institutional Student Learning Outcomes (ISLOs), MCC’s 4Cs.

The Assessment Director leads the development and implementation plan for the assessment of student learning at the course, program/pathway, co-curricular and institutional levels. The Assessment Director works and collaborate with faculty, administrators, the Center for Teaching and Learning (CTL) and OIE to develop an assessment plan and promote a culture of assessment at MCC. The Director of Assessment works with and support the Student Outcomes Committee and Department Assessment Coordinators (DACs) on assessment efforts at MCC.

MCC’s process to assess student learning has engages full-time and part-time faculty through regular meetings of the committee, and through the participation of many academic and occupational faculty events.

II. MCC's 4Cs Development Process

The process began by following the informed improvement strategy. Each of the original student learning outcomes and descriptors were reviewed and evaluated. Common descriptors were eliminated while at the same time linking the new outcomes to the college's Vision, Mission and Value (VMV) statements. The linkage to the MCC's VMV insured fluid integration of institutional student learning outcomes into the college plan. MCC's 4Cs were created: Communication (CO), Critical Thinking (CT), Civic Engagement (CE), and Cultural and Global Engagement (CG).

Groups were formed for each outcome; faculty from both Southern and Dobson and Red Mountain campuses were invited, and participated, in the development of the outcomes clear definitions, the criteria to assess it and scoring guidelines. Scoring guidelines were patterned after the Association of American Colleges and Universities (AACU) and Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics. On December 5, 2013 MCC's 4Cs were adopted by unanimous approval from Faculty Senate. MCC's 4C's development process shown below:

Figure 1

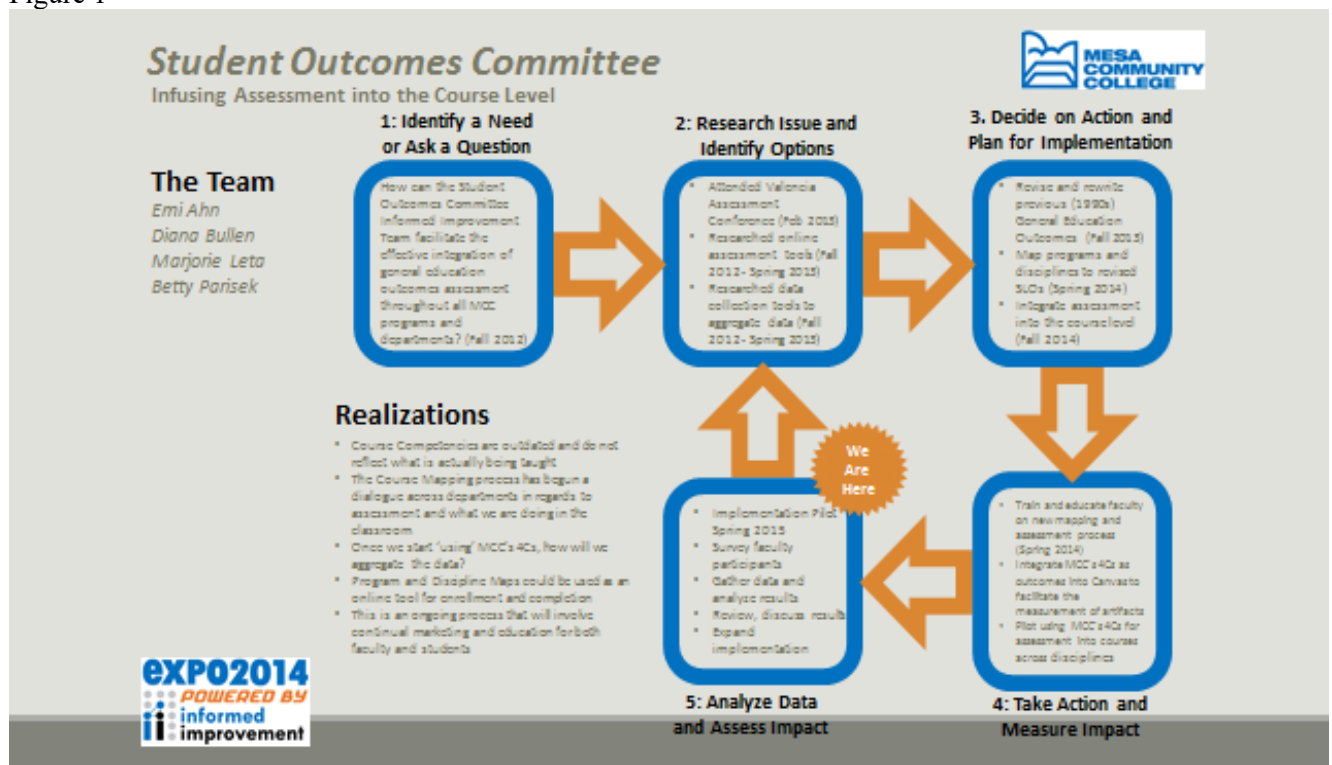


Figure 2

Mesa Community College: Institutional Student Learning Outcomes “MCC’s 4Cs”	
<p><i>The following Institutional Student Learning Outcomes are consistent with the Vision, Mission, and Values of both the Maricopa Community Colleges District and Mesa Community College, and reflect our commitment to Individual and Community, Innovation, Integrity, Learning, and Service Excellence.</i></p>	
<p>COMMUNICATION (CO) Institutional Learning Outcome: The purposeful development, expression and reception of a message through oral, written or nonverbal means.</p> <p>1. PURPOSE: Establish a clear central focus for a message which demonstrates an understanding of context, audience, and task 2. CONTENT: Develop appropriate, relevant content logically sequencing ideas and/or information 3. LANGUAGE: Apply language and/or modes of expression of a discipline in an appropriate and accurate manner to demonstrate comprehension 4. EXECUTION: Convey a message effectively</p>	<p>CIVIC ENGAGEMENT (CE) Institutional learning Outcome: Civic engagement encompasses actions to promote the quality of life in a community, through both political and non-political processes.</p> <p>1. INCLUSIVENESS: Demonstrate an ability to engage respectfully with others in a diverse society 2. APPLY KNOWLEDGE: Apply knowledge from one’s own study and experiences to active and ethical participation in civic life 3. DEMONSTRATION OF CIVIC IDENTITY AND COMMITMENT: Provide evidence of experience in and reflection on civic engagement activities 4. CIVIC COMMUNICATION: Communicate and listen to others in order to establish personal and professional relationships to further civic action 5. ENGAGEMENT IN CIVIC ACTION AND REFLECTION: Demonstrate the ability to deliberate and collaborate on issues and problems to achieve a civic aim</p>
<p>CRITICAL THINKING (CT) Institutional Learning Outcome: Habit of mind of analyzing issues, ideas, artifacts, events, and/or evidence to draw conclusions or solve problems.</p> <p>1. Identify the topic/ subject of inquiry 2. Select appropriate resources required to draw conclusion(s) or solve the problem 3. Apply resources to draw conclusion(s) or solve the problem 4. Evaluate conclusion(s) or the solution to the problem</p>	<p>CULTURAL AND GLOBAL ENGAGEMENT (CG) Institutional learning Outcome: Global Learning encompasses knowledge, skills, and attitudes students acquire through a variety of experiences that enable them to understand world cultures, analyze global systems, appreciate cultural differences, and apply this knowledge and appreciation to their lives as educated individuals and global citizens.</p> <p>1. KNOWLEDGE: Analyzes cultural systems, events, or creations and their relationship to worldviews, values, or behavior. 2. INFLUENCES: Evaluates the impact of contemporary and past events, perspectives, or cultures on intercultural relationships. 3. SELF AWARENESS: Analyzes the impact of culture and intercultural experiences on one’s worldview, values and behavior, including assumptions, biases, prejudices, or stereotypes. 4. RESPONSIBILITY: Evaluates the impact of one’s moral and ethical reasoning on one’s actions in relation to culturally different groups. 5. CULTURAL EXPRESSION: Generates ideas, creations, or models that express the human condition and one’s relationship with the world</p>
<p><i>Revised AY 2017-2018</i></p>	

III. Methodology

During the semesters of Fall 2020 and Spring 2021 (AY 2020-2021), SOC invited all residential, one year only, one semester only, and adjunct faculty to participate in MCC's 4Cs assessment. SOC members promoted participation in assessment activities, lead faculty through the assessment process, and provided guidance in the creation of a signature assignment aligning to the scoring guidelines.

Faculty participants identified a 'C' that best aligned with their course. The faculty chose an assignment within their course that aligned with all criteria of the chosen outcome. Faculty attached the 'C' scoring guidelines to the course assignment in Canvas. Using Canvas students assessed in a 'C' were given a rate of Levels 0 through 4, with level 4 being the highest level of achievement. The data collected in Canvas for each semester was exported, combined into one dataset, aggregated and analyzed using Excel, MCCC Institutional Research Information System (IRIS), and IBM SPSS Statistics.

College level and course level 'C' averages were calculated. The average scores range from zero to four, with four being the highest level of achievement.

The scoring guidelines were revised in AY 2017-2018 and implemented Fall 2018. Some faculty used the newly revised scoring guidelines and others used the prior set of scoring guidelines. When reporting average scores, only data from the new scoring guidelines were analyzed. See Appendix A for assessment results using prior scoring guidelines.

Data Collection Procedures

90 faculty members volunteered to administer MCC's 4C's assessment in a total of 312 sections at Southern and Dobson, Red Mountain, Online, Downtown and Offsite during AY 2020-2021. Faculty administered all assessments in regular class sessions during each semester.

Administration of the assessment occurred during the regular classroom period. Faculty utilized an assignment which had already been created or they created a new assignment that best aligned with one of the MCC's 4Cs. Students were informed that the purpose of the assessment was to measure whether education goals are being achieved in order to improve programs and student learning at MCC.

Faculty administered and scored the assessments using Canvas by the end of each semester. At the end of the semesters, OIE exported an Outcomes Report from Canvas into Excel. The reports contained student names, course name, section number, learning outcome, outcome score, and title of assignment. The exported data was used to match each student's assessment with exact demographic and course data using IRIS.

Student Profile of MCC's 4Cs AY 2020-2021

Table 1

Student Profile of AY 2020-2021 Assessments and College		
	AY 2020-2021 Assessment	Total College (Fall 2020 45th day)
Headcount (Unduplicated)	3,416	16,948
Ethnicity		
American Indian	2.6%	3.1%
Asian & Pacific Islander	5.8%	5.1%
Black/African American	5.1%	5.1%
Hispanic/Latino	29.9%	31.8%
Not Specified	2.9%	2.8%
Two or More	4.9%	4.8%
White	48.7%	47.3%
Gender		
Female	58.8%	56.2%
Male	40.6%	42.6%
Other/Unknown	0.6%	1.2%
Age Group		
Under 18	3.2%	13.2%
18-19	26.0%	20.9%
20-24	39.6%	33.4%
25-29	14.2%	13.8%
30-39	11.1%	11.3%
40-49	4.1%	4.4%
50-59	1.4%	2.1%
60+	0.5%	1.0%
Primary Time of Attendance		
Day	22.5%	28.3%
Evening	5.9%	8.6%
Non-Traditional	67.3%	61.8%
Weekend	0.4%	1.2%
None/Unknown	4.0%	0.1%
Academic Load		
Full Time	41.3%	29.4%
3/4 Time	18.2%	17.9%
Half-Time	19.3%	22.6%
Less than Half-Time	19.3%	30.2%
No Units	5.1%	-

IV. Overall Summary of Results

Faculty Participation

Table 2 shows both, residential and adjunct faculty participation in MCC's 4C's from the pilot semester in Spring 2015 through AY 2020-2021.

Table 2

Faculty Participation							
	Spring 2015 Pilot	AY 2015-2016	AY 2016-2017	AY 2017-2018	AY 2018-2019	Fall 2019	AY 2020-2021
Number of Residential Faculty Participants	33	71	98	136	120	73	44
Residential Faculty*	341	323	303	306	301	295	310
4Cs Residential Faculty Participation Rate	9.68%	21.98%	32.34%	44.44%	39.87%	24.7	14.2%
Number of Adjunct Faculty Participants	2	31	40	97	92	49	46
Adjunct Faculty	861	812	598	673	686	833	680
4Cs Adjunct Faculty Participation Rate	0.23%	3.81%	6.69%	14.41%	13.41%	5.9	6.8%

*Source: MCC HR, Spring 2015 - Fall 2019 actively filled faculty positions (Residential and OYO). Source: MCC Faculty Staffing Dashboard, AY 2020-2021.

Due to the Covid-19 pandemic Fall 2019 was the only semester reported for AY 2019-2020.

Department Participation

3,416 students were assessed for AY 2020-2021, a 51.6% decrease from AY2018-19. The number of departments that assessed was 18. There was a 62% decrease in the number courses and a 51.6% decrease in the number of sections that participated from AY2018-19 to AY 2020-2021.

Table 3

Department Participation							
	Spring 2015 Pilot	AY 2015-2016	AY 2016-2017	AY 2017-2018	AY 2018-19	Fall 2019	AY 2020-2021
Number of Students Assessed	871	3,061	4,576	7,197	7,058	3,082	3,416
Number of Departments	12	17	17	19	19	19	18
Number of Courses	33	88	134	214	208	97	79
Number of Sections	64	235	324	613	639	219	309

Analysis Highlights

- 3,416 students were assessed, completing 4,293 assessments in 79 courses from 18 departments
- 44 residential and 46 adjunct faculty administered the assessments in 312 sections
- 523 students were assessed in Civic Engagement
- 2,135 students were assessed in Communication
- 1,158 students were assessed in Critical Thinking
- 477 students were assessed in Cultural and Global Engagement

V. Results and Observations

Overall Results

Students may have been given an MCC's 4Cs assessment in more than one course, therefore, the # of students in each table in this section are a duplicate count of students. Table 4 provides the departments, the number of instructors, number of courses, number of sections and the number of students assessed AY 2020-2021.

Table 4

AY 2020-2021- Assessments Administered by Department				
Department	# Of Instructors	# Of Courses	# Of Sections	# Of Students
Administration of Justice	1	3	3	42
Applied Sciences and Technology	5	9	15	52
Art	4	3	11	195
Business	4	9	30	383
Communication, Theatre & Film Arts	14	7	63	796
Computer Information Systems	17	6	63	760
Cultural Science	4	4	16	174
Education Studies	2	3	5	50
English/ Humanities/ Journalism	4	10	19	199
Exercise Science, Physical Education, Recreation, Dance	1	2	2	29
Life Science	1	1	5	151
Mathematics and Computer Science	1	1	1	20
Music	1	4	6	64
Nursing	19	4	17	314
Psychological Science	3	2	7	116
Reading	4	2	26	271
Social Science	1	1	1	20
World Languages	5	8	22	210
Total	91	79	312	3,846

Table 5 shows the department, number of courses assessed, number of courses offered (excluding noncredit, cancelled courses, ROTC and NSO) and the percentage of courses assessed in AY 2020-2021.

Table 5

AY 2020-2021 – Courses Offered and Assessed						
Department	# of Courses Assessed	# of Courses Offered	% of Courses Assessed	# of Sections Assessed	# of Sections Offered	% of Sections Assessed
Administration of Justice	3	25	12.0%	3	105	2.9%
Applied Sciences and Technology	9	208	4.3%	15	742	2.0%
Art	3	54	5.6%	11	267	4.1%
Business	9	117	7.7%	30	391	7.7%
Communication, Theatre & Film Arts	7	30	23.3%	63	248	25.4%
Computer Information Systems	6	104	5.8%	63	412	15.3%
Cultural Science	4	74	5.4%	16	297	5.4%
Education Studies	3	36	8.3%	5	111	4.5%
English/ Humanities/ Journalism	10	69	14.5%	19	477	4.0%
Exercise Science, Physical Education, Recreation, Dance	2	93	2.2%	2	259	0.8%
Life Science	1	16	6.3%	5	420	1.2%
Mathematics and Computer Science	1	34	2.9%	1	493	0.2%
Music	4	229	1.7%	6	515	1.2%
Nursing	4	16	25.0%	17	136	12.5%
Psychological Science	2	20	10.0%	7	209	3.3%
Reading	2	7	28.6%	26	104	25.0%
Social Science	1	36	2.8%	1	160	0.6%
World Languages	8	44	18.2%	22	207	10.6%
Total	79	1,212	6.5%	312	5,553	5.6%

Note: The table does not include departments that did not assess during AY 2020-2021

Table 6 shows the number of sections that administered at least one of the MCC's 4C's by location from Spring 2015 through AY 2020-2021. MCC's 4C's were administered in a total of 106 sections at Southern and Dobson. Internet administered the assessment in a total of 201 sections.

Table 6

Section Participation by Location							
	Spring 2015 Pilot	AY2015-16	AY2016-17	AY2017-18	AY2018-19	Fall 2019	AY2020-21
Location	# of Sections	# of Sections	# of Sections	# of Sections	# of Sections	# of Sections	# of Sections
Southern and Dobson	43	149	224	439	427	151	106
Red Mountain	7	12	26	40	46	13	1
Internet	14	73	73	117	156	54	201
Downtown & Offsite	-	1	-	17	-	1	4
HS Dual	-	-	1	-	10	-	-
Total	64	235	324	613	639	219	312

The table below shows the number of sections that administered at least one of the MCC's 4C's from Spring 2015 through AY 2020-2021 by instructional mode.

Table 7

Section Participation by Instructional Mode							
	Spring 2015 Pilot	AY2015-16	AY2016-17	AY2017-18	AY2018-19	Fall 2019	AY2020-21
Instructional Mode	# of Sections	# of Sections	# of Sections	# of Sections	# of Sections	# of Sections	# of Sections
Field Based	-	1	1	6	5	-	2
Hybrid	7	21	32	56	68	25	8
Internet	14	73	73	117	156	54	201
Live Online	-	-	-	-	-	-	95
In Person	43	139	218	432	405	140	6
Independent Study	-	1	-	2	5	-	-
Total	64	235	324	613	639	219	312

Tables 8 – 12 show the college – wide average of MCC’s 4Cs by location.

The following data are from assessments using the AY2017-2018 scoring guidelines. The number of students is duplicated across locations.

Table 8

AY 2020-2021 - Assessment – All Locations		
Learning Outcome	# of Students	Average Score
Civic Engagement	523	3.34
Communication	2,135	3.57
Critical Thinking	1,158	3.28
Cultural and Global Engagement	477	2.86
Total	4,293	-

Note: The average is on a scale from zero to four with four being the highest level of achievement

Table 9

AY 2020-2021 - Assessment – Southern and Dobson		
Learning Outcome	# of Students	Average Score
Civic Engagement	104	3.27
Communication	788	3.75
Critical Thinking	381	3.53
Cultural and Global Engagement	140	3.36
Total	1,413	-

Note: The average is on a scale from zero to four with four being the highest level of achievement

Table 10

AY 2020-2021 - Assessment – Red Mountain		
Learning Outcome	# of Students	Average Score
Civic Engagement	9	3.78
Total	9	-

Note: The average is on a scale from zero to four with four being the highest level of achievement

Table 11

AY 2020-2021 - Assessment – Online		
Learning Outcome	# of Students	Average Score
Civic Engagement	412	3.35
Communication	1,403	3.48
Critical Thinking	779	3.11
Cultural and Global Engagement	346	2.66
Total	2,940	-

Note: The average is on a scale from zero to four with four being the highest level of achievement

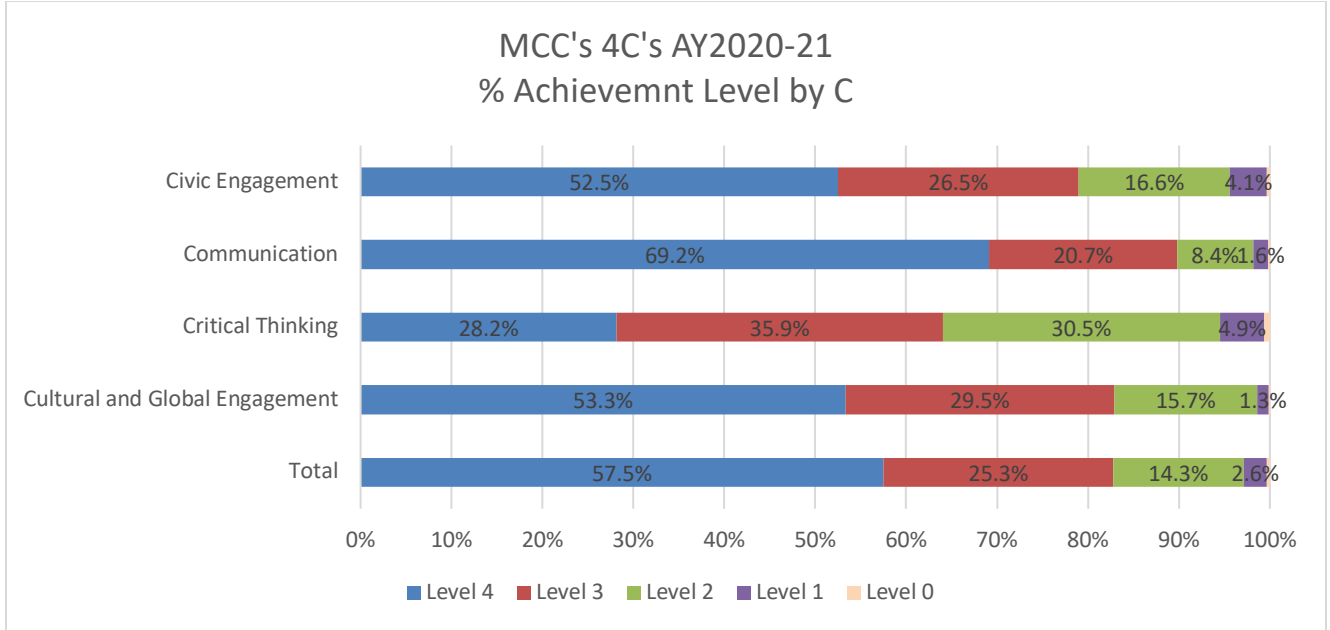
Table 12

AY 2020-2021 - Assessment – Downtown and Offsite		
Learning Outcome	# of Students	Average Score
Critical Thinking	16	3.50
Total	16	-

Note: The average is on a scale from zero to four with four being the highest level of achievement

Chart 1 shows the percentage of assessment scores for each Level by MCC’s 4C.

Chart 1



- 52.5% of Civic Engagement assessments were rated at Level 4
- 69.2% of Communication assessments were rated at Level 4
- 28.2% of Critical Thinking assessments were rated at Level 4
- 53.3% of Cultural and Global Engagement assessments were rated at Level 4
- Total of 57.5% of all MCC’s 4C’s assessments were rated level 4

Civic Engagement

Definition

Civic Engagement: Civic engagement encompasses actions to promote the quality of life in a community, through both political and non-political processes.

Descriptors

1. INCLUSIVENESS: Demonstrate an ability to engage respectfully with others in a diverse society
2. APPLY KNOWLEDGE: Apply knowledge from one's own study and experiences to active and ethical participation in civic life
3. DEMONSTRATION OF CIVIC IDENTITY AND COMMITMENT: Provide evidence of experience in and reflection on civic engagement activities
4. CIVIC COMMUNICATION: Communicate and listen to others in order to establish personal and professional relationships to further civic action
5. ENGAGEMENT IN CIVIC ACTION AND REFLECTION: Demonstrate the ability to deliberate and collaborate on issues and problems to achieve a civic aim

Civic Engagement Results

Table 13 shows the college-wide Civic Engagement learning outcome score for AY 2020-2021.

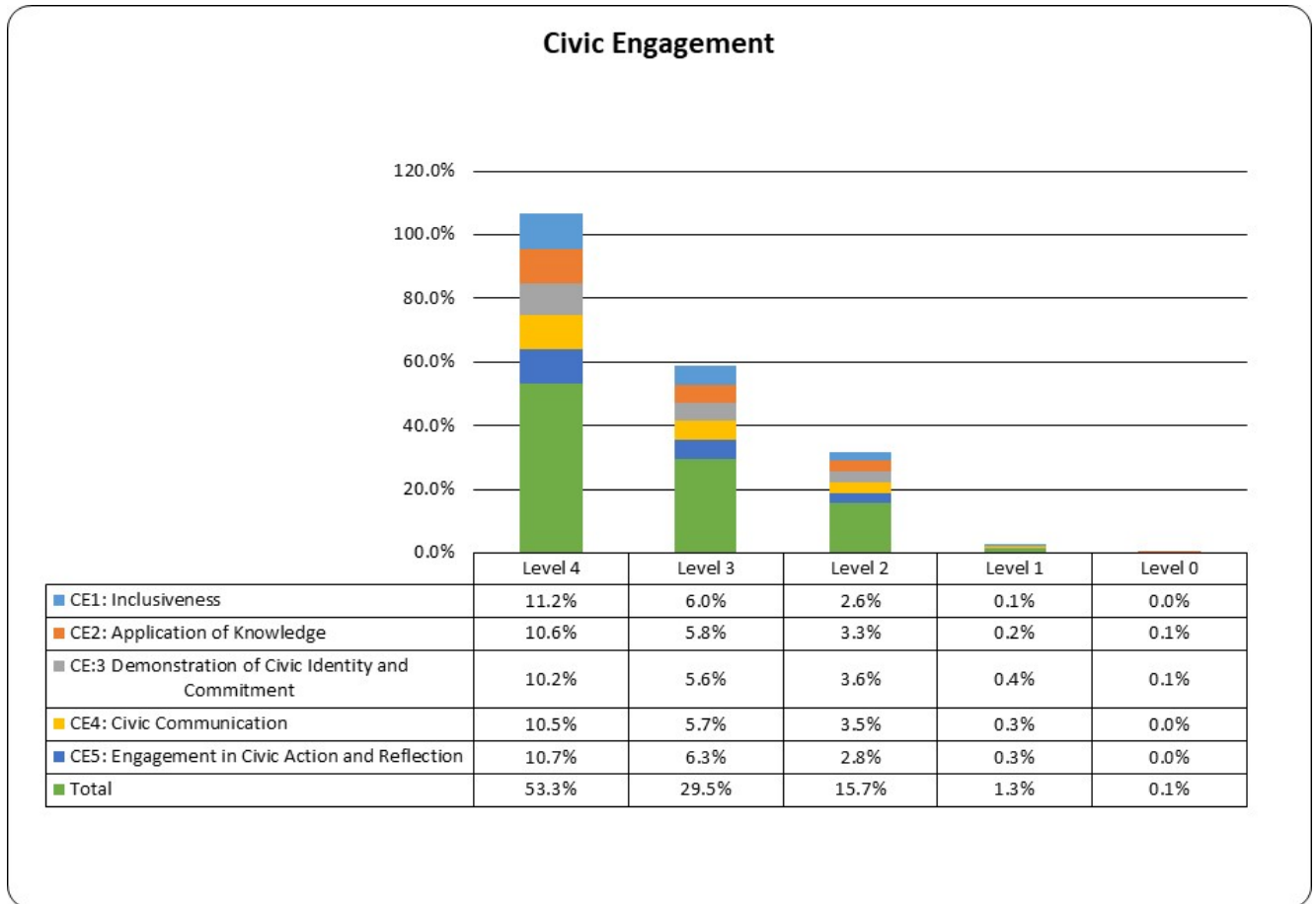
In calculating the average score, blanks were given a score of zero. Therefore, the average score is on a scale of 0 to 4, with four being the highest level of achievement.

Table 13

AY 2020-2021 - Assessment – All Locations		
Learning Outcome	# of Students	Average Score
Civic Engagement	523	3.34

Chart 2 shows the percentage of students scoring at each Level per descriptor.

Chart 2



- 82.8% of Civic Engagement assessments were rated at Level 4 or Level 3
- CE1: Inclusiveness, assessed more students at Level 4 (11.2%) than the other descriptors assessing at any other Level
- All descriptors assessed most student assessments at a Level 4

Communication

Definition

Communication: The purposeful development, expression and reception of a message through oral, written or nonverbal means. See Appendix A for Scoring Guidelines.

Descriptors

1. PURPOSE: Establish a clear central focus for a message which demonstrates an understanding of context, audience, and task
2. CONTENT: Develop appropriate, relevant content logically sequencing ideas and/or information
3. LANGUAGE: Apply language and/or modes of expression of a discipline in an appropriate and accurate manner to demonstrate comprehension
4. EXECUTION: Convey a message effectively

Communication Results

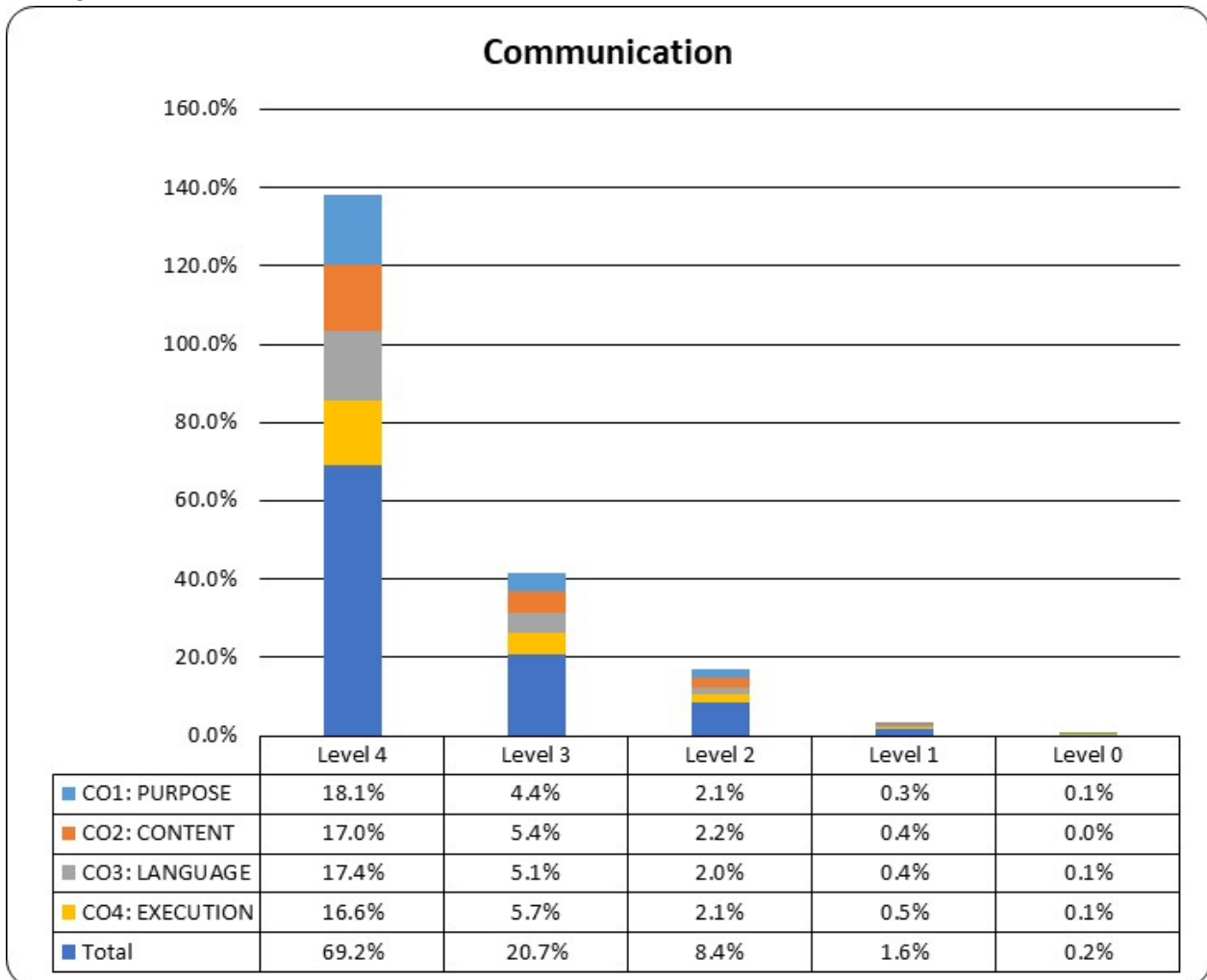
Table 14 shows the college-wide Communication learning outcome score for AY 2020-2021. In calculating the average score, blanks were given a score of zero. Therefore, the average score is on a scale of 0 to 4, with four being the highest level of achievement.

Table 14

AY 2020-2021 - Assessment – All Locations		
Learning Outcome	# of Students	Average Score
Communication	2,135	3.57

Chart 3 shows the percentage of students scoring at each Level per descriptor.

Chart 3



- 69.2% of Communication assessments were rated at Level 4
- CO1: Purpose, assessed more students at Level 4 (18.10%) than the other descriptors assessing at any other Level
- All descriptors assessed most student assessments at a Level 4

Critical Thinking

Definition

Critical Thinking: Habit of mind of analyzing issues, ideas, artifacts, events, and/or evidence to draw conclusions or solve problems.

Descriptors

1. Identify the topic/ subject of inquiry
2. Select appropriate resources required to draw conclusion(s) or solve the problem
3. Apply resources to draw conclusion(s) or solve the problem
4. Evaluate conclusion(s) or the solution to the problem

Critical Thinking Results

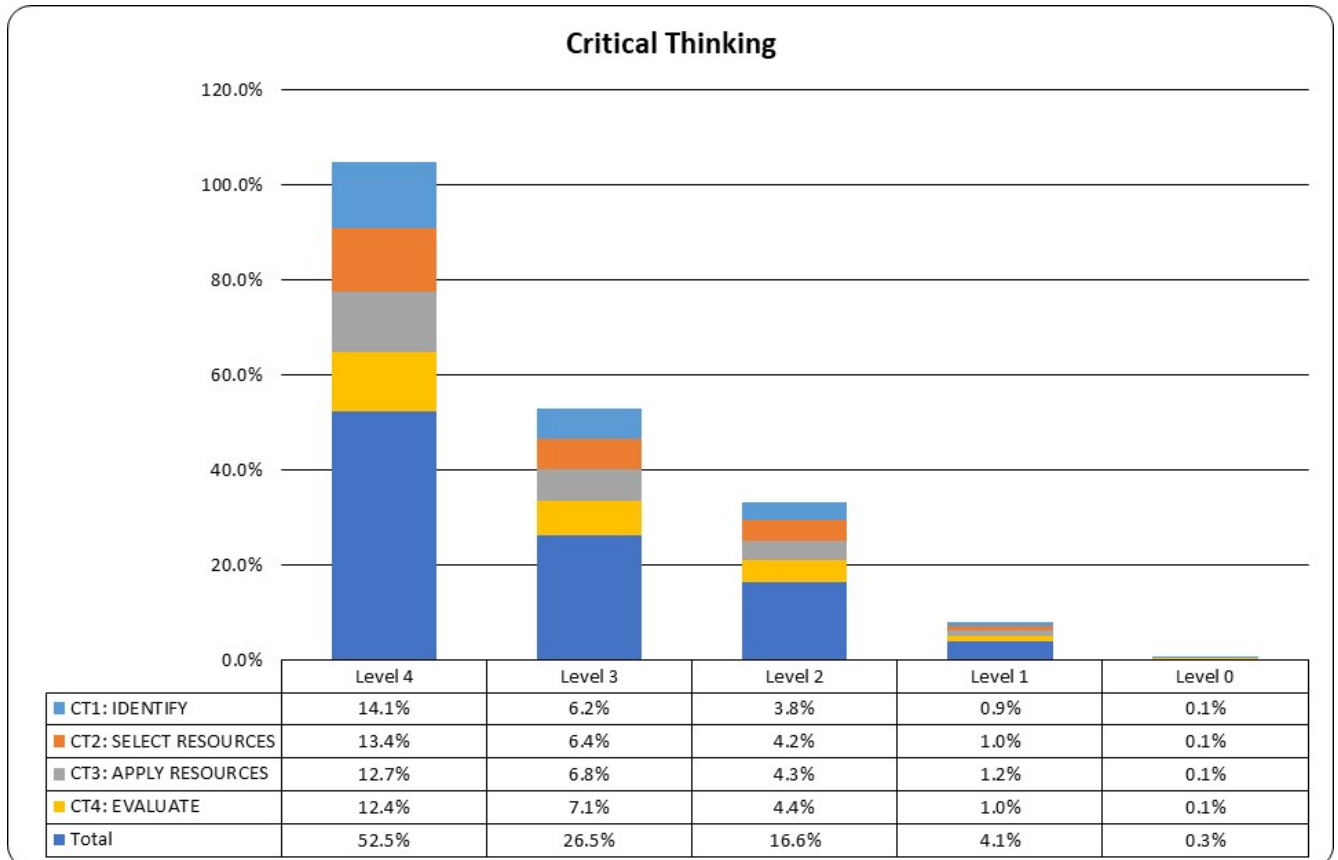
Table 15 shows the college-wide Critical Thinking learning outcome score for AY 2020-2021. In calculating the average score, blanks were given a score of zero. Therefore, the average score is on a scale of 0 to 4, with four being the highest level of achievement.

Table 15

AY 2020-2021 - Assessment – All Locations		
Learning Outcome	# of Students	Average Score
Critical Thinking	1,158	3.28

Chart 4 shows percentage of students scoring at each Level per descriptor.

Chart 4



- 52.5% of Critical Thinking assessments were rated at Level 4
- CT1: Identify, assessed more students at Level 4 (14.1%) than the other descriptors assessing at any other Level
- All descriptors assessed most student assessments at a Level 4

Cultural and Global Engagement

Definition

Cultural and Global Engagement: Global Learning encompasses knowledge, skills, and attitudes students acquire through a variety of experiences that enable them to understand world cultures, analyze global systems, appreciate cultural differences, and apply this knowledge and appreciation to their lives as educated individuals and global citizens.

Descriptors

1. KNOWLEDGE: Analyzes cultural systems, events, or creations and their relationship to worldviews, values, or behavior.
2. INFLUENCES: Evaluates the impact of contemporary and past events, perspectives, or cultures on intercultural relationships.
3. SELF AWARENESS: Analyzes the impact of culture and intercultural experiences on one's worldview, values and behavior, including assumptions, biases, prejudices, or stereotypes.
4. RESPONSIBILITY: Evaluates the impact of one's moral and ethical reasoning on one's actions in relation to culturally different groups.
5. CULTURAL EXPRESSION: Generates ideas, creations, or models that express the human condition and one's relationship with the world

Cultural and Global Engagement Results

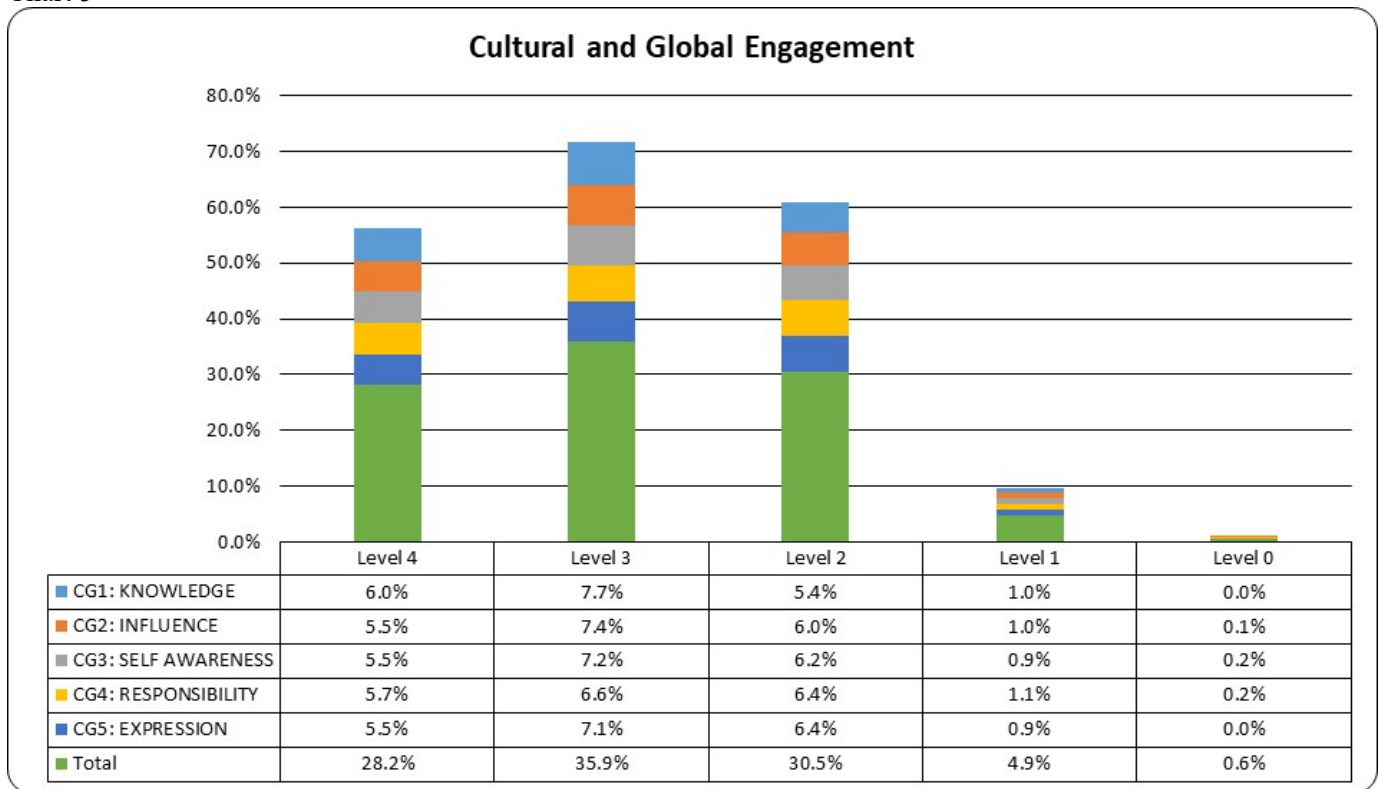
Table 16 shows the college-wide Cultural and Global Engagement learning outcome score for AY 2020-2021. In calculating the average score, blanks were given a score of zero. Therefore, the average score is on a scale of 0 to 4, with four being the highest level of achievement.

Table 16

AY 2020-2021 - Assessment – All Locations		
Learning Outcome	# of Students	Average Score
Cultural and Global Engagement	477	2.86

Chart 5 shows the percentage of students scoring at each Level per descriptor.

Chart 5



- 35.9% of Cultural and Global Engagement assessments were rated at Level 3
- CG1: Knowledge, assessed more students at Level 3 (7.7%) than the other descriptors assessing at any other Level
- All descriptors assessed most student assessments at a Level 3

VI. Indirect Measures of Student Learning

In addition to the direct measures of the achievement of student learning provided by evaluating the results of the assessments administered to students annually, several indirect measures of student learning are collected at the college. These indirect measures provide further evidence of student learning; results from several indirect measures are presented in this section.

Course Completion

Data about course completion is provided for Fall semesters in Table 17. The percentages of successful/unsuccessful students completing a course and those withdrawing from a course have remained relatively stable.

Table 17

Mesa Community College - Course Completion				
	Successful (A, B, C, P)	Unsuccessful (D, F, Z)	Completer Sub-total	Withdrew (W,Y)
Fall 2009	70%	9%	79%	21%
Fall 2010	69%	9%	78%	22%
Fall 2011	69%	10%	79%	21%
Fall 2012	70%	10%	80%	20%
Fall 2013	72%	10%	82%	18%
Fall 2014	73%	10%	83%	17%
Fall 2015	74%	10%	84%	16%
Fall 2016	74%	10%	84%	16%
Fall 2017	76%	9%	85%	15%
Fall 2018	76%	9%	85%	15%
Fall 2019	74.5%	9.1%	84%	16.5%
Fall 2020	72%	9%	81%	19%

Term to Term Retention

Term to term retention (sometimes called persistence) is a measure of how many credit students return to college in the future semesters. Students who graduated/earned an award prior to returning the following semester are excluded from the original cohort and following terms. Below is the Fall 2020 to Spring 2021 and Fall 2020 to Fall 2021 retention rates.

Table 18

Fall to Spring

	Initial Fall Cohort	Graduates Before Spring	Fall to Spring Cohort	Fall to Spring Retention	Fall to Spring Retention Rate
All Students	15,627	450	15,177	9,590	63.2%
Grand Total	15,627	450	15,177	9,590	63.2%

Table 19

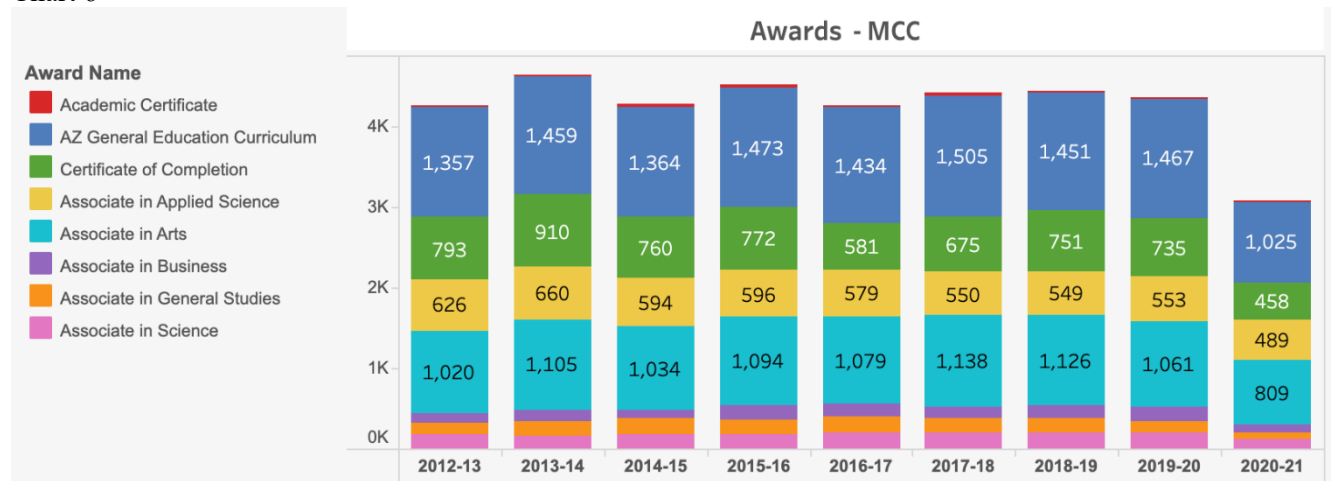
Fall to Fall

Graduates Before Fall	Fall to Fall Cohort	Fall to Fall Retention	Fall to Fall Retention Rate
1,158	14,469	6,247	43.2%
1,158	14,469	6,247	43.2%

Degree and Certificate Awards

MCC conferred 1,592 degrees and 1,492 certificates in 2020-21, a decrease from prior years.

Chart 6



Source: MCCC Office of Institutional Effectiveness – Maricopa Trends

Table 20

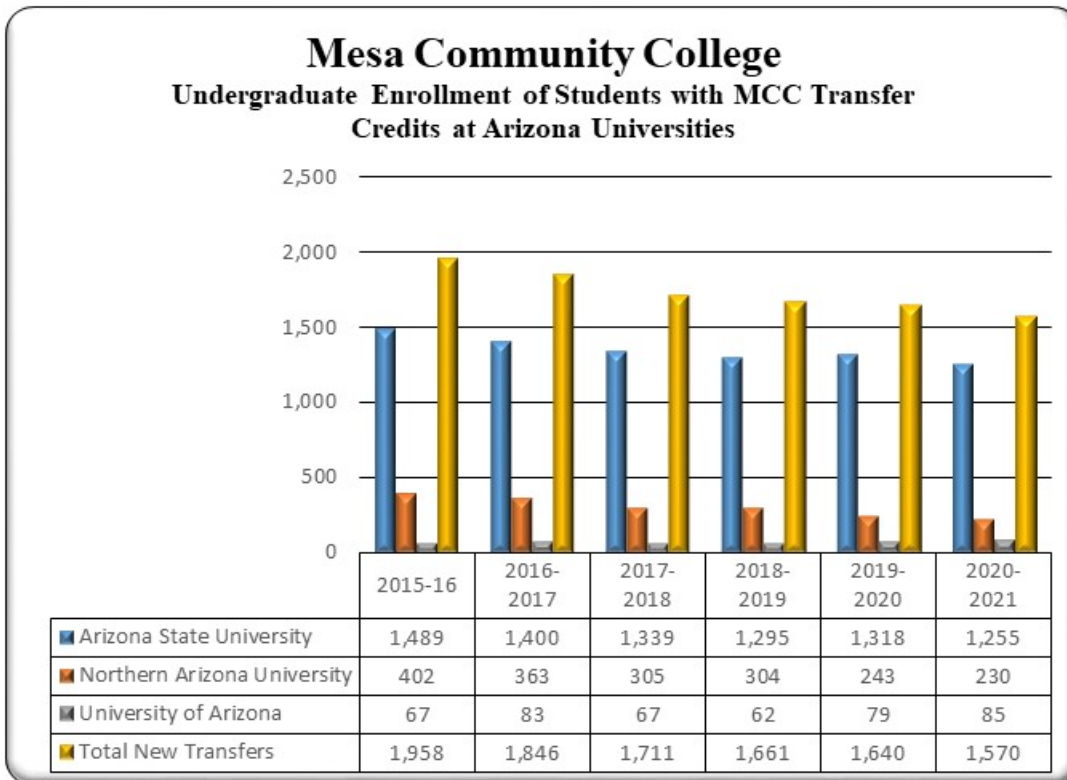
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Certificat.	Academic Certificate (AC)	0.2%	0.5%	0.9%	0.9%	0.8%	0.9%	0.5%	0.6%	0.3%
	AZ General Ed. Curriculum (AGEC)	31.9%	31.4%	31.9%	32.7%	33.6%	34.0%	32.7%	33.6%	33.2%
	Certificate of Completion (CCL)	18.6%	19.6%	17.8%	17.1%	13.6%	15.2%	16.9%	16.9%	14.9%
Degrees	Associate in Business (AB)	2.8%	3.2%	2.7%	3.7%	3.7%	3.2%	3.7%	4.2%	3.3%
	Associate in Applied Science (AAS)	14.7%	14.2%	13.9%	13.2%	13.6%	12.4%	12.4%	12.7%	15.9%
	Associate in Arts (AA)	24.0%	23.8%	24.2%	24.3%	25.3%	25.7%	25.4%	24.3%	26.2%
	Associate in General Studies (AGS)	3.7%	4.0%	4.5%	4.0%	4.9%	3.9%	4.0%	3.1%	2.4%
	Associate in Science (AS)	4.0%	3.3%	4.2%	4.1%	4.5%	4.6%	4.4%	4.5%	3.9%

Source: MCCC Office of Institutional Effectiveness – Maricopa Trends

Transfer

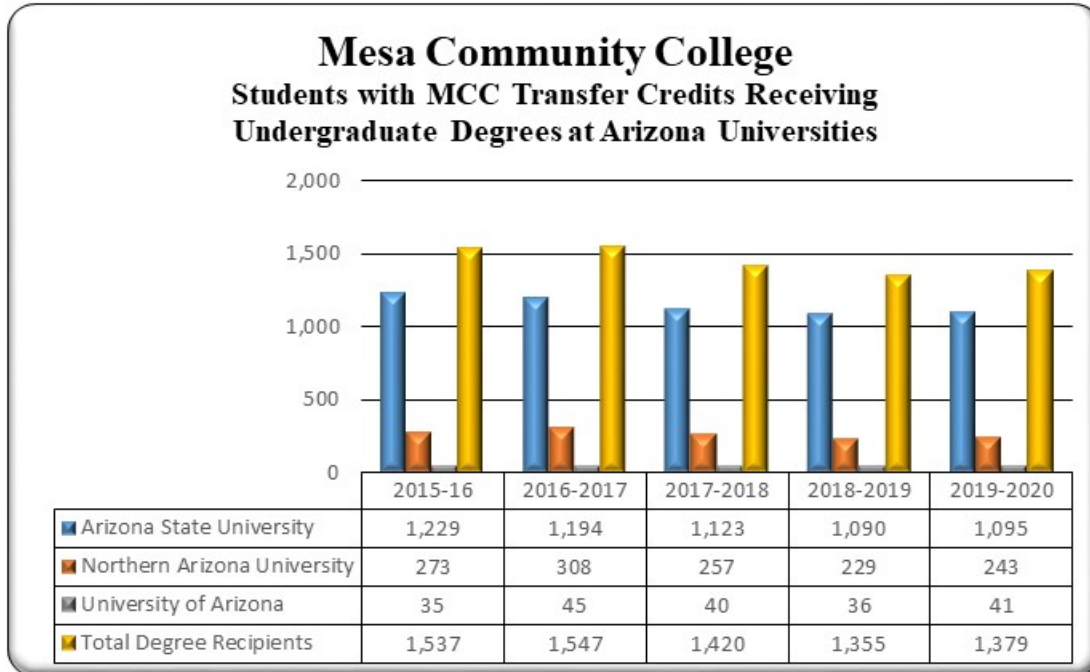
The number of students with 12 or more MCC transfer credits enrolled in an Arizona university as new transfers in Fall and Spring semesters and the number of degree recipients with MCC transfer credits are described in the following charts.

Chart 7



Source: Assist Data Warehouse

Chart 8



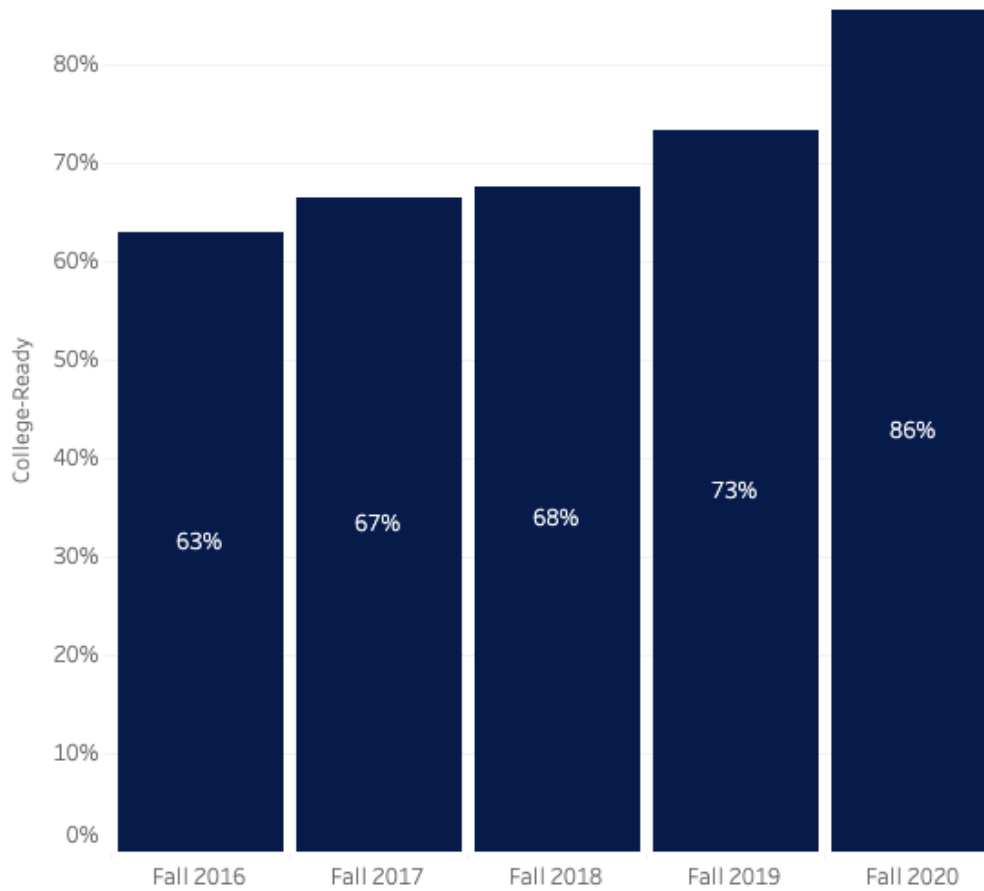
Source: Assist Data Warehouse

College-Level Course Completion in the First Year

The college-ready rates, completion of math and English in the first year, success rate in the first year trends are shown in the charts below.

Chart 9

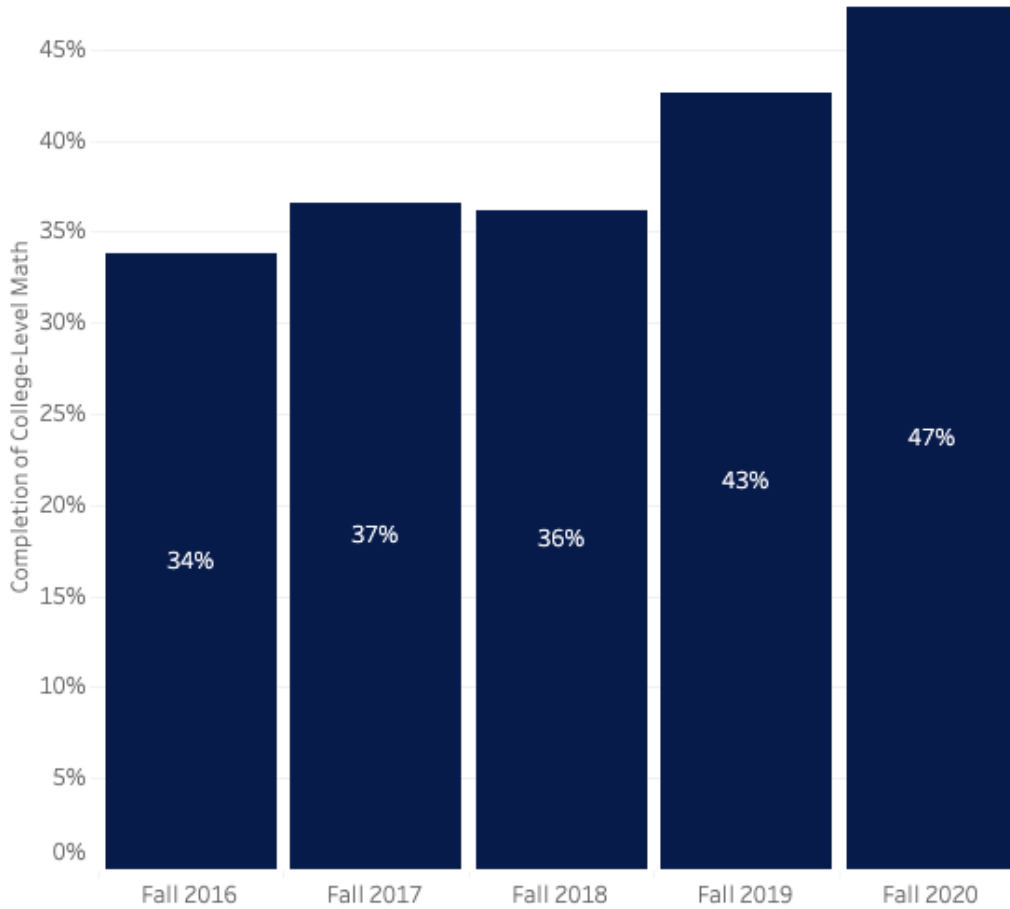
College-Ready Trend



Source: 2021 Governing Board Monitoring Metrics Performance Dashboard

Chart 10

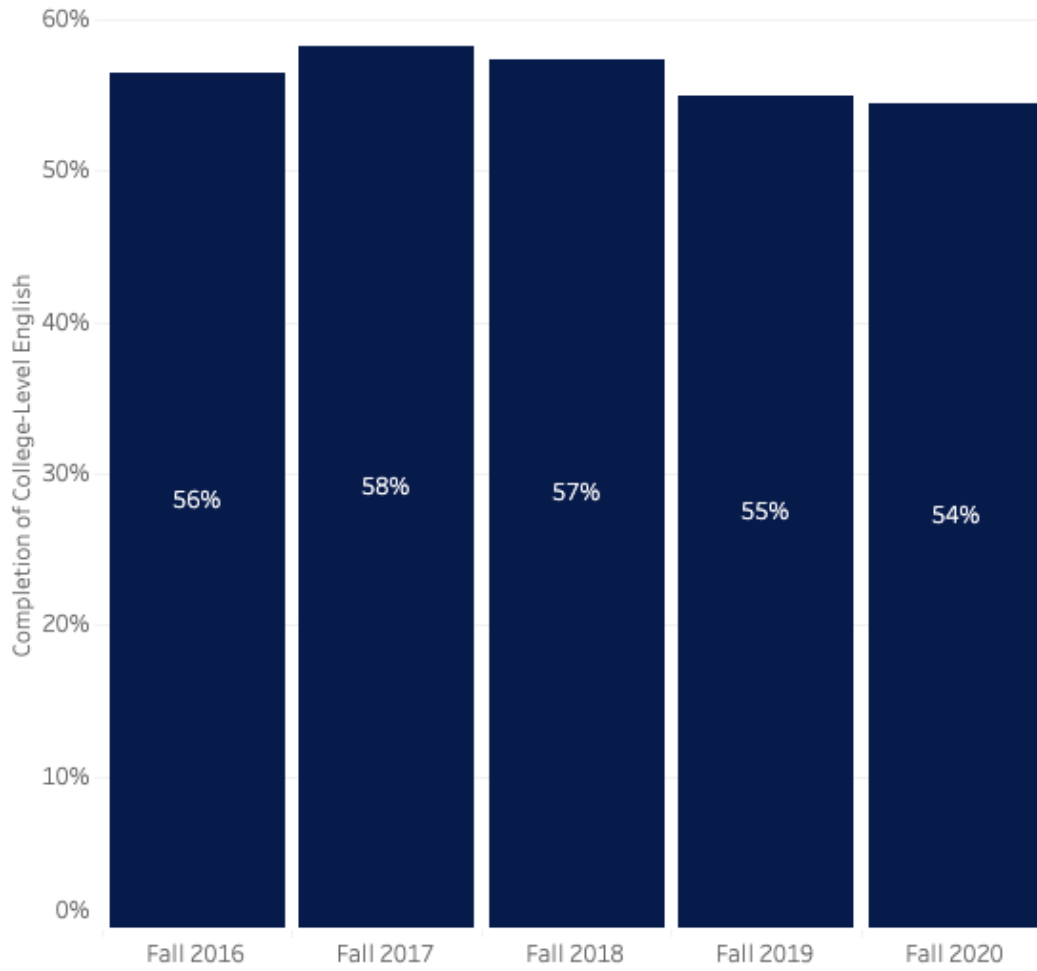
Completion of College-Level Math Trend



Source: 2021 Governing Board Monitoring Metrics Performance Dashboard

Chart 11

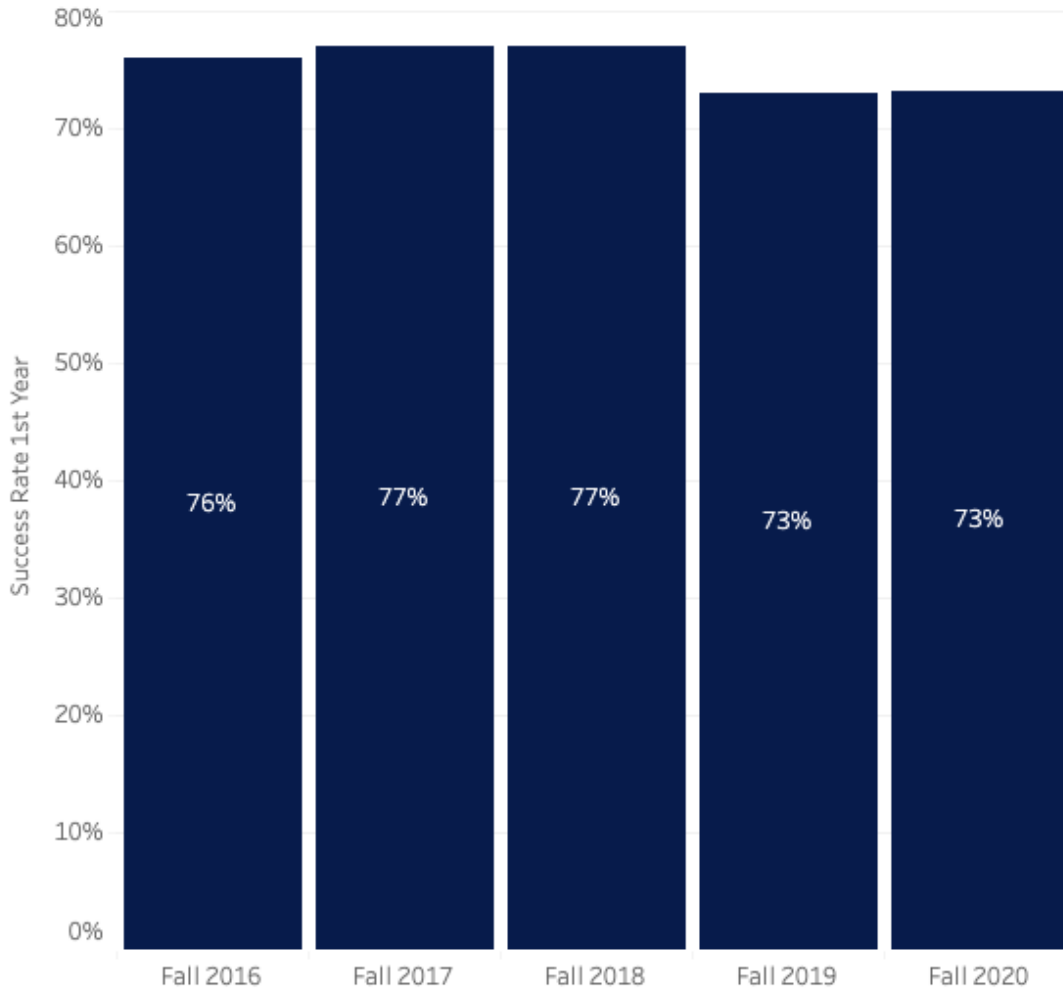
Completion of College-Level English Trend



Source: 2021 Governing Board Monitoring Metrics Performance Dashboard

Chart 12

Success Rate 1st Year Trend



Source: 2021 Governing Board Monitoring Metrics Performance Dashboard

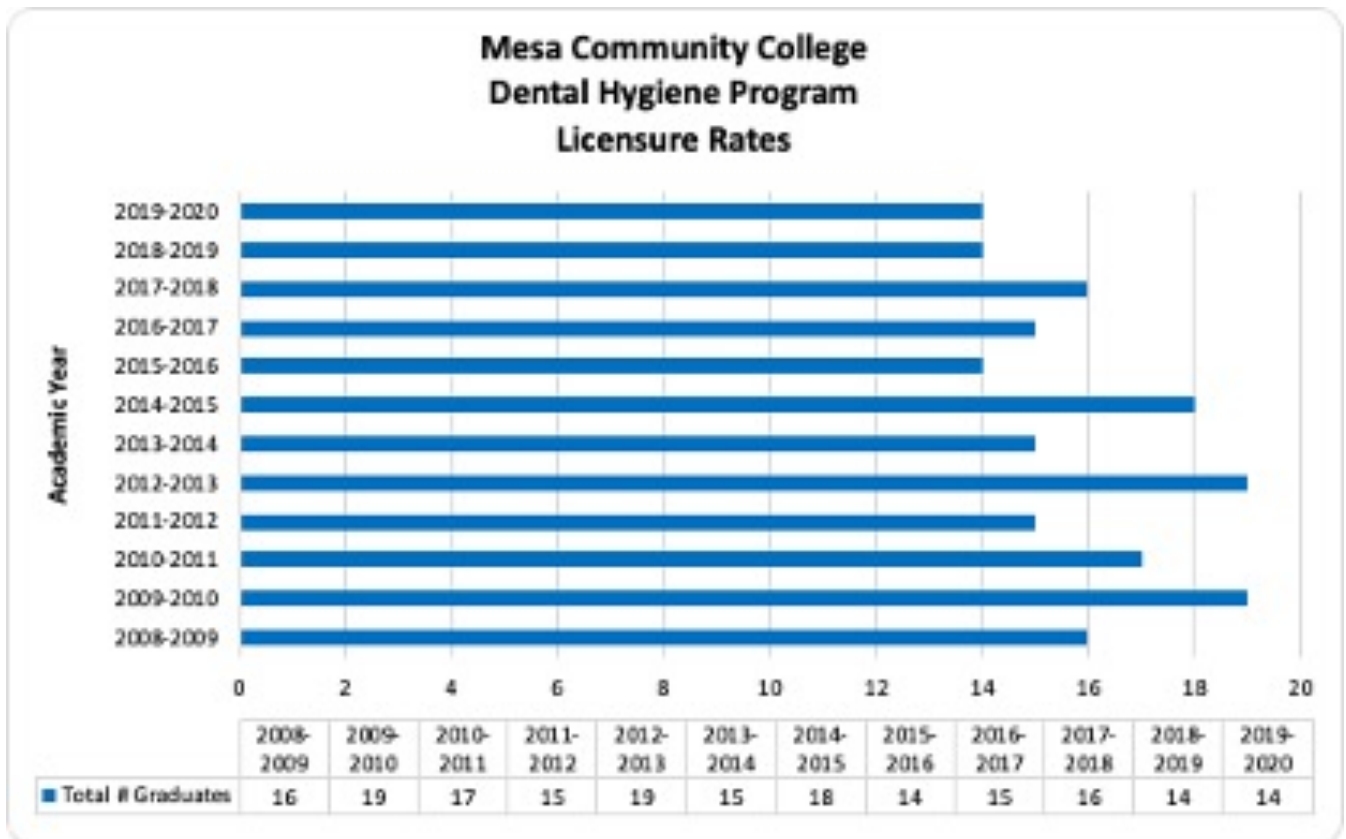
Licensure and Certification

Students in Dental Hygiene, Fire Science, Mortuary Science, Network Academy, Nursing, and Veterinary Technology programs are able to receive licensure from outside licensure bodies after their studies at MCC. Data on licensure is presented below for these programs.

Dental Hygiene

Dental hygiene students take a national written exam, a regional practical and written exam, and a state written jurisprudence exam. Students must pass all exams in order to obtain a license to practice. Results are obtained from the national and regional examining bodies.

Chart 13



Fire Science and EMT

The MCC Fire Science program offers certification in several areas as detailed in Tables 21-22 (last updated 2018). The Fire Fighter I and II Certification and the Hazardous Materials First Responder are both granted by the Arizona State Fire Marshall's Office. The actual success rate of attainment of the certificates may be underestimated because only the initial attempt at passage is reported back to the college. Students have three chances to pass the certification.

Table 21

Fire Science and EMT Licensing Agencies	
License/Certification	Agency
Candidate Physical Agility Test (FSC 130)	International Association of Firefighters
	International Fire Chiefs Association
Hazardous Materials/First Responder (FSC 105)	Arizona Center for Fire Service Excellence
Fire Operations (FSC 102)	Arizona Center for Fire Service Excellence
Wildland Firefighter (FSC 110)	Arizona Bureau of Land Management
Paramedic (EMT 272)	Arizona State Department of Health Services and National Registry of EMTs
EMT (EMT 104)	Arizona State Department of Health Services and National Registry of EMTs
Fire Investigation	Arizona International Association of Arson Investigators
Cardiopulmonary Resuscitation (EMT 101)	American Heart Association

Table 22

Mesa Community College - Fire Science/EMT Passage Rates									
License/Certification	Spring/Summer 2016			Spring/Summer 2017			Spring/Summer 2018		
	Attempt	Passed	%	Attempt	Passed	%	Attempt	Passed	%
Wildland Firefighter (FSC 110)	0	0	0	21	21	100%	47	47	100%
Fire Department Operations (FSC 102)	20	17	85%	19	19	100%	41	41	100%
Hazardous Materials/First Responder (FSC105)	43	36	84%	38	30	79%	137	137	100%
Candidate Physical Ability Test (FSC 130)	25	17	68%	30	18	60%	34	19	56%
Cardiopulmonary Resuscitation (EMT 101)	223	223	100%	349	349	100%	192	192	100%
EMT (EMT 104: 3 attempts are allowed)	145	125	86%	125	108	86%	138	130	94%
Paramedic (EMT 272: 3 attempts are allowed)	23	23	100%	20	18	90%	20	17	85%

Network Academy

The Network Academy offers certification pathways in Network Administration, Network Security, Microsoft, Red Hat Linux, VMware, Information Assurance, and Workplace Skills. Training formats include fast tracks, traditional semesters, distance learning, and internet deliveries. Network Academy students earn industry certification after completion of the program; however, there is not a formal mechanism for reporting certifications back to the program.

Nursing

Nursing students who complete a four semester curriculum and receive the Associate of Applied Science degree are eligible to take an exam to become licensed through the National Council of State Boards of Nursing Examination for Nursing (NCLEX RN) licensure exam; pass rates are detailed in Table 23 below.

Table 23

Mesa Community College Nursing Program NCLEX RN Examination			
	Total # Graduates	# Graduates Taking NCLEX RN Exam	Pass Rate of Exam Takers
Spring 2014	67	66	100%
Spring 2015	84	83	95%
Spring 2016	83	78	96%
Spring 2017	83	73	95%
Spring 2018	54	52	96%
Spring 2019	78	77	99%
Spring 2020	81	80	99%

Veterinary Technology

Graduates of the MCC Veterinary Technology Program are required to complete two semesters of prerequisite coursework in order to qualify to formally apply for admission to the Program proper. After a selective admission process, the Program proper consists of a five-semester curriculum leading to the Associate of Applied Science in Veterinary Technology/Animal Health. Graduates are immediately eligible to “sit” for the Veterinary Technician National Examination (VTNE) and the Arizona state Veterinary Technician certification examination. The VTNE is administered by the Professional Examination Service, and the state certification examination is administered by the Arizona State Veterinary Medical Examining Board. Upon passing both the VTNE and the state certification examination, the successful candidate is granted certification as a Certified Veterinary Technician by the state of Arizona.

Table 24

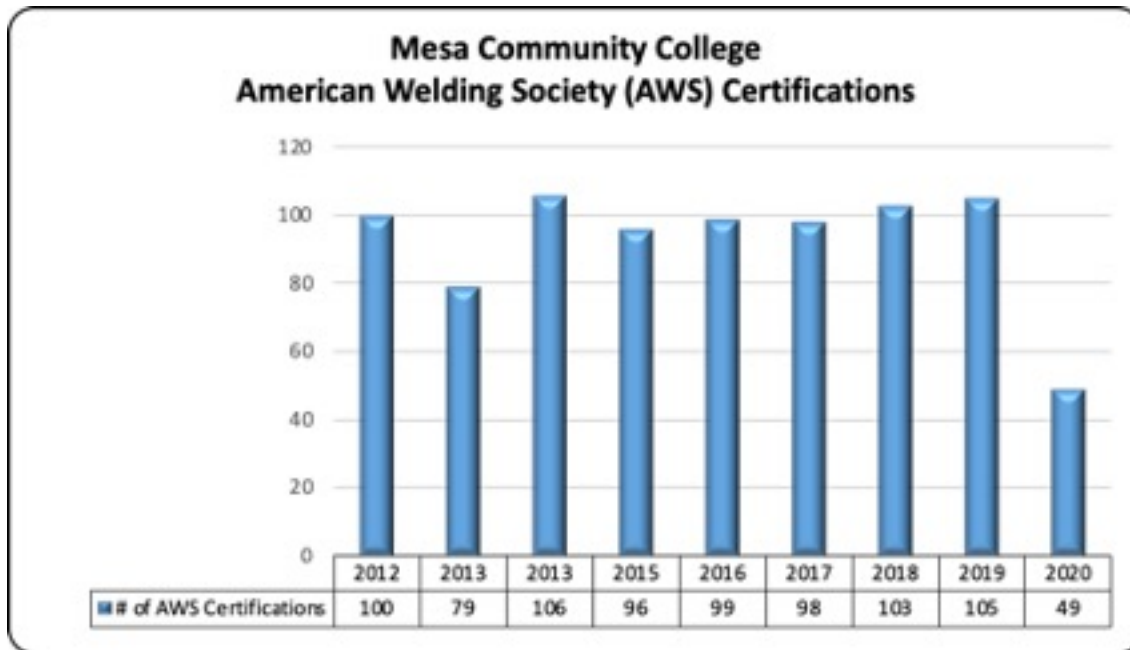
Mesa Community College Veterinary Technology Board Exam Pass Rates			
	Graduates	% Passed State Exam	% Passed National Exam
Spring 2014	13	85%	85%
Spring 2015	15	93%	93%
Spring 2016	10	100%	100%
Spring 2017	10 (6 sat for boards)	100%	100%
Spring 2018	11	N/A	100%
Spring 2019	18	N/A	71%
Spring 2020	10	N/A	100%

Welding

Welding students who are on the path to gain a Certificate of Completion (CCL) in Welding develop skills in oxyacetylene (gas) and electric (arc) welding. The CCL in Welding has an emphasis on preparing students for the American Welding Society Arc certification exam.

The number of MCC students receiving the AWS Welding Certifications since 2012 are shown in Chart 14.

Chart 14



Industry welding certifications students received include:

- SMAW Plate
- FCAW Plate
- GMAW Plate
- GTAW Aluminum Sheet
- GTAW Stainless Steel Sheet
- GTAW Carbon Steel Sheet and
- GTAW/SMAW Pipe Certifications

Appendix A
MCC's 4Cs Scoring Guidelines

Scoring Guidelines

Civic Engagement Scoring Guidelines

CIVIC ENGAGEMENT - SCORING GUIDELINES					
DEFINITION: Civic engagement encompasses actions to promote the quality of life in a community, through both political and non-political processes.					
Descriptors	Level 4	Level 3	Level 2	Level 1	Level 0
	Proficient: Demonstrates in-depth understanding of the process or concept. Minor errors or mistakes may be present but do not impede understanding.	Developing Proficiency: Demonstrates foundational understanding of the process or concept, but misconceptions impede in-depth understanding.	Beginning Proficiency: Demonstrates beginning understanding of the process or concept.	Not Proficient: Does not demonstrate understanding.	No submission
1. INCLUSIVENESS: Demonstrate an ability to engage respectfully with others in a diverse society					
2. APPLY KNOWLEDGE: Apply knowledge from one's own study and experiences to active and ethical participation in civic life					
3. DEMONSTRATION OF CIVIC IDENTITY AND COMMITMENT: Provide evidence of experience in and reflection on civic engagement activities					
4. CIVIC COMMUNICATION: Communicate and listen to others in order to establish personal and professional relationships to further civic action					
5. ENGAGEMENT IN CIVIC ACTION AND REFLECTION: Demonstrate the ability to deliberate and collaborate on issues and problems to achieve a civic aim					

Communication Scoring Guidelines

COMMUNICATION - SCORING GUIDELINE					
DEFINITION: The purposeful development, expression and reception of a message through oral, written or nonverbal means.					
Descriptors	Level 4	Level 3	Level 2	Level 1	Level 0
	<p>Proficient: Demonstrates in-depth understanding of the process or concept. Minor errors or mistakes may be present but do not impede understanding.</p>	<p>Developing Proficiency: Demonstrates foundational understanding of the process or concept, but misconceptions impede in- depth understanding.</p>	<p>Beginning Proficiency: Demonstrates beginning understanding of the process or concept.</p>	<p>Not Proficient: Does not demonstrate understanding.</p>	No submission
<p>1. PURPOSE: Establish a clear central focus for a message which demonstrates an understanding of context, audience, and task</p>					
<p>2. CONTENT: Develop appropriate, relevant content logically sequencing ideas and/or information</p>					
<p>3. LANGUAGE: Apply language and/or modes of expression of a discipline in an appropriate and accurate manner to demonstrate comprehension</p>					
<p>4. EXECUTION: Convey a message effectively</p>					

Critical Thinking Scoring Guidelines

CRITICAL THINKING - SCORING GUIDELINES					
DEFINITION: Habit of mind of analyzing issues, ideas, artifacts, events, and/or evidence to draw conclusions or solve problems.					
Descriptors	Level 4	Level 3	Level 2	Level 1	Level 0
	<p>Proficient: Demonstrates in-depth understanding of the process or concept. Minor errors or mistakes may be present but do not impede understanding.</p>	<p>Developing Proficiency: Demonstrates foundational understanding of the process or concept, but misconceptions impede in-depth understanding.</p>	<p>Beginning Proficiency: Demonstrates beginning understanding of the process or concept.</p>	<p>Not Proficient: Does not demonstrate understanding.</p>	<p>No submission</p>
1. Identify the topic/ subject of inquiry					
2. Select appropriate resources required to draw conclusion(s) or solve the problem					
3. Apply resources to draw conclusion(s) or solve the problem					
4. Evaluate conclusion(s) or the solution to the problem					

Cultural and Global Engagement Scoring Guidelines

CULTURAL AND GLOBAL ENGAGEMENT - SCORING GUIDELINE					
DEFINITION: Global Learning encompasses knowledge, skills, and attitudes students acquire through a variety of experiences that enable them to understand world cultures, analyze global systems, appreciate cultural differences, and apply this knowledge and appreciation to their lives as educated individuals and global citizens.					
Descriptors	Level 4	Level 3	Level 2	Level 1	Level 0
	Proficient: Demonstrates in-depth understanding of the process or concept. Minor errors or mistakes may be present but do not impede understanding.	Developing Proficiency: Demonstrates foundational understanding of the process or concept, but misconceptions impede in-depth understanding.	Beginning Proficiency: Demonstrates beginning understanding of the process or concept.	Not Proficient: Does not demonstrate understanding.	No submission
1. KNOWLEDGE: Analyzes cultural systems, events, or creations and their relationship to worldviews, values, or behavior.					
2. INFLUENCE: Evaluates the impact of contemporary and past events, perspectives, or cultures on intercultural relationships.					
3. SELF AWARENESS: Analyzes the impact of culture and intercultural experiences on one's worldview, values and behavior, including assumptions, biases, prejudices, or stereotypes.					
4. RESPONSIBILITY: Evaluates the impact of one's moral and ethical reasoning on one's actions in relation to culturally different groups.					
5. EXPRESSION: Generates ideas, creations, or models that express the human condition and one's relationship with the world					