



INSTITUTE OF TECHNOLOGY

OKLAHOMA STATE UNIVERSITY INSTITUTE OF TECHNOLOGY-OKMULGEE ANNUAL STUDENT ASSESSMENT REPORT OF 2019-20 ACTIVITY

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December 2020

Oklahoma State University Institute of Technology-Okmulgee

OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION
Annual Student Assessment Report of 2019-20 Activity

Section I – Entry Level Assessment and Course Placement

Activities

I-1. *What information was used to determine college-level course placement? Please report the specific multiple measures your institution used for FY 2019-2020 (e.g., high school GPA and CPT cut scores).*

Oklahoma State University Institute of Technology (OSUIT) uses the ACT[®] and SAT[®] exams as preliminary measures to evaluate first-time freshmen. OSUIT utilizes multiple placement measures – to include the student’s unweighted high school grade point average (GPA), Next-Generation ACCUPLACER[®] scores, ACCUPLACER[®] scores, and WritePlacer[®] scores. Students who fail to demonstrate academic proficiency in a given subject area through one (1) of these placement methods are required to complete remediation prior to enrollment in college-level coursework in the respective subject area.

I-2. *How were students determined to need remediation of deficiencies (e.g., CPT cut scores or advising process)?*

OSUIT utilizes multiple placement measures to determine a student’s academic proficiency in reading, writing, and mathematics. This academic proficiency may be demonstrated in one (1) of the following seven (7) ways:

1. Transferring in college credits that demonstrate academic proficiency in a subject area.
2. Submitting ACT[®] subject scores of 19 or above in subject area(s).
3. Submitting SAT[®] test scores that demonstrate academic proficiency based upon the following subject scores.

Evidence-Based Reading and Writing	480
Math	530

4. Submitting a valid high school transcript reflecting an unweighted cumulative GPA of 2.50 or higher.
5. Submitting Next-Generation ACCUPLACER[®] scores at or above the minimum required score on each component as listed below.

Exam	College-Level Placement Score	Subject(s)
Reading	250	All
Writing <i>or</i> WritePlacer [®]	250 <i>or</i> 5	Freshman Composition and Technical Writing
Arithmetic	250	Business Mathematics
Quantitative Reasoning, Algebra and Statistics (QAS)	250	College Algebra
Reading <i>and</i> Quantitative Reasoning, Algebra and Statistics (QAS)	250	Science

6. Submitting ACCUPLACER[®] scores at or above the minimum required score on each component as listed below.

Exam	College-Level Placement Score	Subject(s)
Reading Comprehension	75	All
Writing Skills	80 or 70-79 plus WritePlacer [®] score of 5 or above	Freshman Composition and Technical Writing
Arithmetic	70	Business Mathematics
Elementary Algebra	74	College Algebra
Reading Comprehension <i>and</i> Elementary Algebra	75 <i>and</i> 74	Science

7. Submitting ACT COMPASS[®] scores at or above the minimum required score on each component as listed below (through Fall 2019).

Exam	College-Level Placement Score	Subject(s)
Reading Comprehension	81	All
English (Sentence Skills)	74	Freshman Composition and Technical Writing
Arithmetic (Pre-Algebra)	46	Business Mathematics
Elementary Algebra <i>or</i> College Algebra	68 <i>or</i> 45	College Algebra
Reading Comprehension <i>and</i> Elementary Algebra <i>or</i> College Algebra	81 <i>and</i> 68 <i>or</i> 45	Science

Prior to enrollment, students are required to meet with an academic advisor. During this advisement session, factors such as placement assessment scores, high school GPA, intervening time span since the student's last mathematics and/or writing classes, and student's comfort level with applicable course requirements will be evaluated to determine the most advantageous plan of study for the student.

Based upon these factors, a student may be placed and/or opt in to one of the following options:

- direct placement into the appropriate course;
- enrollment into appropriate course plus corequisite strategies support course; or
- enrollment into an appropriate developmental course sequence.

The Next-Generation ACCUPLACER[®] exam is administered online through the OSUIT's Assessment Center and at remote sites approved by the university. This allows students access to testing with flexible hours and at numerous sites, including sites for students living abroad. OSUIT also provides students with additional flexibility in course placement processes by continuing to accept ACCUPLACER[®] and ACT COMPASS[®] scores for up to three years after the exam was administered.

I-3. *What options were available for identified students to complete developmental education within the first year or 24 college-level credit hours?*

If students are unable to meet the minimum requirements established to indicate academic proficiency, they are placed in one of the following remediation pathways:

- enrollment into appropriate course plus corequisite strategies support course; or
- enrollment into an appropriate developmental course sequence.

With the exception of students enrolled in corequisite developmental coursework, students may enroll in collegiate level courses within the deficiency’s discipline area only after the deficiency is satisfied. One-on-one mentoring, tutoring, and academic counseling are available to academically at-risk students while enrolled in developmental courses.

I-4. *What information was used to determine co-requisite course placement? Please report the specific multiple measures your institution used for FY 2019-2020 (e.g., high school GPA and CPT cut scores).*

OSUIT utilizes the Next-Generation ACCUPLACER® exam to determine corequisite developmental course placement. Students who submit scores at or above the minimum required placement score for each component (as listed below) have the option of enrolling in corequisite developmental coursework in English and mathematics.

Exam	College-Level Placement Score	Subject(s)
Reading	250	All
Writing <i>or</i> WritePlacer®	237 <i>or</i> 3	Freshman Composition and Technical Writing
Arithmetic	237	Business Mathematics
Quantitative Reasoning, Algebra and Statistics (QAS)	237	College Algebra

I-5. *Describe the method used to place “adult” students who do not have ACT/SAT scores.*

Prior to enrollment, adult students are required to meet with an academic advisor and are sent to the Assessment Center for Next-Generation ACCUPLACER® testing. After testing they then meet with an academic advisor for an advisement session. During this advisement session, factors such as placement assessment scores, high school GPA, intervening time span since the student’s last mathematics and/or writing classes, and student’s comfort level with applicable course requirements will be evaluated to determine the most advantageous plan of study for the student. Based upon these factors, a student may be placed and/or opt in to one of the following options:

- direct placement into the appropriate course;
- enrollment into appropriate course plus corequisite strategies support course; or
- enrollment into an appropriate developmental course sequence.

The Next-Generation ACCUPLACER® exam is administered online through the OSUIT’s Assessment Center and at remote sites approved by the university. This allows students access to testing with flexible hours and at numerous sites, including sites for students living abroad.

OSUIT also provides students with additional flexibility in course placement processes by continuing to accept ACCUPLACER® and ACT COMPASS® scores for up to three years after the exam was administered.

I-6. Describe analyses and findings of student success in both developmental and college-level courses, effectiveness of the placement decisions, evaluation of cut-scores, and changes in the entry-level assessment process or approaches to teaching as a result of findings.

Student success at OSUIT is defined as passing a class with an A, B, C, D or P letter grade.

Student Success, Developmental Coursework

COURSE	Title	Semester	GRADE			W	Total Students	# Passed	% Passed
			AW	NP	P				
ENGL 0102*	Technical Writing Strategies	Summer 2019			1		1	1	100.00%
		Fall 2019			2		2	2	100.00%
		Spring 2020					0	0	0.00%
		ENGL 0102 Subtotal			3			3	3
ENGL 0112*	Freshman Comp Strategies	Summer 2019	2		1		4	1	25.00%
		Fall 2019	2	3	4		9	4	44.44%
		Spring 2020		4	4	1	9	4	44.44%
		ENGL 0112 Subtotal	4	7	9	1	22	9	40.91%
ENGL 0143	English Fundamentals	Summer 2019		1			1	0	0.00%
		Fall 2019	2	4	7	1	14	7	50.00%
		Spring 2020		2	5		7	5	71.43%
		ENGL 0143 Subtotal	2	7	12	1	22	12	54.55%
MATH 0143	Math Fundamentals	Summer 2019			2		2	2	100.00%
		Fall 2019	3	2	6	1	12	6	50.00%
		Spring 2020			4		4	4	100.00%
		MATH 0143 Subtotal	3	2	12	1	18	12	66.67%
MATH 0152*	College Algebra Strategies	Summer 2019		2	6	2	10	6	60.00%
		Fall 2019		2	7	3	12	7	58.33%
		Spring 2020		2			2	0	0.00%
		MATH 0152 Subtotal		6	13	5	24	13	54.17%
MATH 0153	Algebra Fundamentals	Summer 2019		4	8	2	14	8	57.14%
		Fall 2019		4	10		14	10	71.43%
		Spring 2020		2	5	1	8	5	62.50%
		MATH 0153 Subtotal		10	23	3	36	23	63.89%
MATH 0202*	Business Math Strategies	Summer 2019			4		4	4	100.00%
		Fall 2019			2		2	2	100.00%
		Spring 2020					0	0	0.00%
		MATH 0202 Subtotal			6		6	6	100.00%
PHYS 0123	Science	Summer 2019			2		2	2	100.00%
		Fall 2019		9	3	1	13	3	23.08%
		Spring 2020					0	0	0.00%
		PHYS 0123 Subtotal		9	5	1	15	5	33.33%
READ 0143	Reading Fundamentals	Summer 2019	3	3	8	2	16	8	50.00%
		Fall 2019		1	1		2	1	50.00%
		Spring 2020			1		1	1	100.00%
		READ 0143 Subtotal	3	4	10	2	19	10	52.63%
Grand Total		12	45	93	14	165	93	56.36%	

*Corequisite support courses

Student Success, College-Level Coursework

Course	Title	Semester	GRADE									Total Students	# Pass	% Pass		
			A	AW	B	C	D	F	I	NP	P				W	
BIOL 1014	General Biology (Non-Majors)	Summer 2019	14		10	4	1	4					2	35	29	82.86%
		Fall 19	16		14	5		2					1	38	35	92.11%
		Spring 2020	12		18	6		4					10	50	36	72.00%
	BIOL 1014 Subtotal			42		42	15	1	10				13	123	100	81.30%
BIOL 1114	General Biology	Summer 2019	17		27	13	7	7					6	77	64	83.12%
		Fall 19	60		66	48	18	16					2	210	192	91.43%
		Spring 2020	17		43	15	8	16			8		3	110	91	82.73%
	BIOL 1114 Subtotal			94		136	76	33	39			8	11	397	347	87.41%
BIOL Total			136		178	91	34	49			8	24	520	447	85.96%	
ENGL 1033	Technical Writing I	Summer 2019	5		6	11	7	4					1	34	29	85.29%
		Fall 19	7		11	7	4	4					2	35	29	82.86%
		Spring 2020	30		31	20	6	8					1	96	87	90.63%
	ENGL 1033 Subtotal			42		48	38	17	16				4	165	145	87.88%
ENGL 1113	Freshman Composition I	Summer 2019	26	3	8	10	2	7					7	63	46	73.02%
		Fall 19	156	6	87	39	15	48	2				22	375	297	79.20%
		Spring 2020	60	4	30	16	5	15		2			10	142	111	78.17%
	ENGL 1113 Subtotal			242	13	125	65	22	70	2	2		39	580	454	78.28%
ENGL 1213	Freshman Composition II	Summer 2019	17		25	18	6	10					8	84	66	78.57%
		Fall 19	35	2	32	22	10	15					7	123	99	80.49%
		Spring 2020	113	5	70	29	12	16	2	10	4		17	278	228	82.01%
	ENGL 1213 Subtotal			165	7	127	69	28	41	2	10	4	32	485	393	81.03%
ENGL 2033	Technical Writing II	Summer 2019	15		33	25	13	8					3	97	86	88.66%
		Fall 19	5		9	9	7	6					2	38	30	78.95%
		Spring 2020	11		12	9	3	5					1	41	35	85.37%
	ENGL 2033 Subtotal			31		54	43	23	19				6	176	151	85.80%
ENGL Total			480	20	354	215	90	146	4	12	4	81	1406	1143	81.29%	
HIST 1483	US History To 1865	Summer 2019	17		9	7	1	2					1	37	34	91.89%
		Fall 19	28		16	6	4	11					6	71	54	76.06%
		Spring 2020	13		2	2	1	2					2	22	18	81.82%
	HIST 1483 Subtotal			58		27	15	6	15				9	130	106	81.54%
HIST 1493	US History Since 1865	Summer 2019	67		51	25	8	18					3	172	151	87.79%
		Fall 19	174		71	22	8	16					5	296	275	92.91%
		Spring 2020	107	1	55	20	12	20			1		4	220	195	88.64%
	HIST 1493 Subtotal			348	1	177	67	28	54			1	12	688	621	90.26%
HIST Total			406	1	204	82	34	69			1	21	819	727	88.88%	
MATH 1513	College Algebra	Summer 2019	32		13	15	5	16					13	94	65	69.15%
		Fall 19	59		59	58	16	48					41	281	192	68.33%
		Spring 2020	29		28	13	5	13		6	3		22	119	78	65.55%
	MATH 1513 Subtotal			120		100	86	26	77		6	3	76	494	335	67.81%
MATH 2003	Business Mathematics	Summer 2019	26		28	13	3	9					3	82	70	85.37%
		Fall 19	35		21	19	5	8					6	94	80	85.11%
		Spring 2020	29		23	12	2	3		1	2		4	76	68	89.47%
	MATH 2003 Subtotal			90		72	44	10	20		1	2	13	255	218	85.49%
MATH Total			210		172	130	36	97		7	5	89	746	553	74.13%	
Grand Total			1232	21	908	518	194	361	4	19	18	215	3490	2870	82.23%	

Section II – General Education Assessment

Administering Assessment

II-1. *Describe the institutional general education competencies/outcomes and how they are assessed.*

Assessment of general education outcomes is conducted as described in each program's academic assessment plan; these assessments were developed by faculty specifically for each program outcome. Six Core Outcomes common to all programs of study, based on reading, writing, mathematics, critical thinking, ethics, diversity, technical competencies, and service learning, grew from this process. Student attainment of general education outcomes is measured as described below in alignment with these Core Outcomes, which are also addressed summatively within each technical program's assessment plans.

- **Core Outcome 1 – Communication:** Effectively communicate electronically, verbally and in writing. *Communication* is assessed in ENGL 1033 Technical Writing I, ENGL 1113 Freshman Composition I, ENGL 1213 Freshman Composition II, ENGL 2033 Technical Writing II, ENGL 3323 Technical Writing III, SPCH 1113 Introduction to Speech Communications, and SPCH 2313 Small Group Communications.
- **Core Outcome 2 – Critical Thinking:** Demonstrate logical, systematic problem-solving techniques. *Critical Thinking* is assessed in BIOL 1114 General Biology and in specific mathematics and statistics courses, as determined by the student's program of study.
- **Core Outcome 3 – Ethics and Diversity:** Develop and display a sense of personal, social, and professional ethics, as well as an appreciation of and encouragement for diversity. *Ethics and Diversity* is assessed in PHIL 1213 Ethics.
- **Core Outcome 4 – History and Government:** Explain the cultural heritage and primary elements of the history and government of the U.S. and its people, including diversity, especially as it impacts one's industry or field of study. *History and Government* is assessed in HIST 1483 U.S. History to 1865, HIST 1493 U.S. History since 1865, and POLS 1113 U.S. Government.
- **Core Outcome 5 – Technology:** Access and use technology appropriate to one's industry or field of study. *Technology* is assessed in CS 1013 Computer Literacy & Applications and ENGL 1213 Freshman Composition II.
- **Core Outcome 6 – Service Learning:** Effectively utilize learned technologies and processes to aid various constituencies in the community. *Service Learning* is assessed in POLS 1113 U.S. Government and ORIE 1011 College Strategies as provided by the School of Arts, Sciences & Health.

Faculty set a uniform college benchmark for assessment of student learning: At least eighty percent (80%) of students will complete each assessment at a seventy percent (70%) level of competency or higher (some programs, such as Instrumentation Technology Engineering, and Nursing, require more rigorous levels of competency in alignment with specialized

accreditation or industry certification requirements). OSUIT assesses general education measures for associate degree programs prior to the end of the degree program, and for baccalaureate degree programs prior to the completion of seventy credit hours of instruction and at the end of the degree program. Measures include those chosen by faculty to improve teaching and learning in areas such as communication, critical thinking, mathematics, reading, and writing. These assessment methods have been standardized to ensure that the same assessment instrument is utilized consistently in each course section, regardless of faculty teaching the course.

II-2. *Describe how the assessments were administered and how students were selected.*

Formative mid-level assessments of general education outcomes are faculty-developed, faculty-driven, and primarily course-embedded to motivate students to participate to their fullest abilities. Because it is possible in some cases for a student to pass a particular class while not passing the assessment, or to pass the assessment while not passing the class, faculty enter the results of these assessments into the Banner Student Information System at the same time as they report student course grades. Results are tabulated based upon faculty reported results in the database and flagged as a numerical score representing “Pass,” “Fail,” or no score for “Non-Applicable.” In addition, individual passing and failing scores are collected in order to utilize the information in revision of assessment processes.

II-3. *Describe strategies used to motivate students to substantively participate in the assessment.*

The courses selected for inclusion in the assessment process are core requirements for each program area, thereby providing an opportunity for all students to participate in the assessment process. Assessments are developed as core elements within courses, and each assessment is integrated into the course structure. Assessment instruments are tied to required course components and curriculum requirements to motivate students to participate to their fullest abilities.

II-4. *What instructional changes occurred or are planned in response to general education assessment results?*

A review of institutional assessment data takes place during the summer semester. Changes are made to assessment plans for the next academic year based on assessment data, program advisory group recommendations, classroom observations, and changes within industry. This year, no instructional changes were made in response to general education outcomes, and the current standards were deemed appropriate for student learning in applicable courses. However, the Core Outcomes were considered for revision by the institutional Assessment Committee for better alignment with the mission of OSUIT.

Analyses and Findings

II-5. Report the results of each assessment by sub-groups of students, as defined in institutional assessment plans.

Core Outcome Assessment Results

CORE OUTCOME AND COURSE IN WHICH ASSESSMENT OCCURS			Assessment Results		
			Passed	Total	Pass Percent
1: COMMUNICATION	ENGL 1033	TECHNICAL WRITING I	109	144	75.69%
	ENGL 1113	FRESHMAN COMPOSITION I	410	451	90.91%
	ENGL 1213	FRESHMAN COMPOSITION II	373	429	86.95%
	ENGL 2033	TECHNICAL WRITING II	95	124	76.61%
	ENGL 3323	TECHNICAL WRITING III	34	40	85.00%
	SPCH 1113	INTRODUCTION TO SPEECH COMMUNICATIONS	324	352	92.05%
	SPCH 2313	SMALL GROUP COMMUNICATIONS	132	138	95.65%
Communication Total			1477	1678	88.02%
2: CRITICAL THINKING	BIOL 1114	GENERAL BIOLOGY	129	130	99.23%
	MATH 1513	COLLEGE ALGEBRA	238	331	71.90%
	MATH 1613	TRIGONOMETRY	0	0	0.00%
	MATH 2003	BUSINESS MATHEMATICS	161	191	84.29%
	MATH 2144	CALCULUS I	0	0	0.00%
	MATH 2153	CALCULUS II	0	0	0.00%
	MATH 3103	DISCRETE MATHEMATICS	0	0	0.00%
	STAT 2013	ELEMENTARY STATISTICS	0	0	0.00%
Critical Thinking Total			528	652	80.98%
3: ETHICS & DIVERSITY	PHIL 1213	ETHICS	461	481	95.84%
	Ethics & Diversity Total			461	481
4: HISTORY AND GOVERNMENT	POLS 1113	US GOVERNMENT	382	407	93.86%
	HIST 1483	US HISTORY TO 1865	0	0	0.00%
	HIST 1493	US HISTORY SINCE 1865	372	394	94.42%
History & Government Total			754	801	94.13%
5: TECHNOLOGY	CS 1013	COMPUTER LITERACY & APPLICATIONS	448	486	92.18%
	ENGL 1213	FRESHMAN COMPOSITION II	373	429	86.95%
Technology Total			821	915	89.73%
6: SERVICE LEARNING	POLS 1113	US GOVERNMENT	382	407	93.86%
	ORIE 1011	COLLEGE STRATEGIES	89	92	96.74%
Service Learning Total			471	499	94.39%
Grand Total			4512	5026	89.77%

II-6. *How is student performance tracked into subsequent semesters and what were the findings?*

Deans and Assessment Committee members review the assessment process each summer in each program to track student performance year-by-year and semester-by-semester. Assessment scores are extracted from the student information system by the institutional research office for analysis in the program assessment review meetings. Agendas for the assessment review meetings are based on a five-year plan for strategic focus on one or two Core Outcomes each academic year. Members also consider the major issues affecting the programs during the current and upcoming academic years.

The focus for academic year 2019-2020 was on *Critical Thinking* which involves two subject areas: Mathematics and Science. In summer 2019, faculty worked together to create an end-of-course assessment for Business Mathematics (MATH 2003) and College Algebra (MATH 1513) courses to be utilized by all faculty teaching these courses. Analyses of outcomes for both assessments were shown to be sufficient to the task, and no changes were made to course objectives. For consistency among faculty and adjunct faculty, rubrics and assessment tool requirements were examined and posted on the campus shared drive. As for the Science component of *Critical Thinking*, General Biology (BIOL 1114) revealed that a large number of students did not complete an assessment, but those who completed the assessment had an overall high pass rate. The issue of students missing assessments will be addressed with faculty and adjuncts in the affected courses to improve data collection for next year.

II-7. *Describe the evaluation of the general education assessment and any modifications made to assessment and teaching in response to the evaluation.*

The institutional Core Outcomes were revisited by the Assessment Committee during the 2019-2020 academic year for possible revision. No changes were recommended for Communication. For Critical Thinking, the committee removed the word “techniques” from the end of the outcome. Ethics and Diversity were determined to be two separate outcomes needing different assessments. History and Government was changed to “Civic Responsibility” to reflect the part of OSUIT’s mission statement referring to our students as “...contributing members of society.” The core outcome Technology was broadened to include capabilities beyond the student’s industry or field of study. Service Learning was absorbed into the core outcome of Civic Responsibility. These changes took place as of the fall 2020 term. The Core Outcomes now read as follows:

1. Communication: Effectively communicate electronically, verbally, and in writing.
2. Critical Thinking: Demonstrate logical, systematic critical thinking.
3. Ethics: Demonstrate ethical behavior and decision-making.
4. Diversity and Inclusion: Practice inclusivity by supporting individual and cultural diversity.
5. Civic Responsibility: Contribute positively to community, society, and government.
6. Technology: Utilize technology to aid in the discovery, development, and purposeful application of knowledge and skills.

Section III – Program Outcomes

Administering Assessment

III-1. *List, in table format, assessment measures and number of individuals assessed for each degree program. Include graduate programs if applicable to the institutional assessment plan.*

Assessment by Program

School/Program (Assessments vary by program and are course embedded)		Assessment Results		
School	Program	Total Passed	Total Assessed	Pass Percent
Arts, Sciences & Health (SASH)	AAS in Culinary Arts	700	804	87.06%
	AAS in Nursing	498	527	94.50%
	AAS in Orthotic and Prosthetic Technologies	133	157	84.71%
	AS in Allied Health Sciences	154	178	86.52%
	AS in Business	285	335	85.07%
	AS in Enterprise Development	2	3	66.67%
	AS in Pre-Education	110	120	91.67%
	AS in Pre-Education (Secondary)	3	3	100.00%
	AS in Pre-Professional Studies	890	985	90.36%
	BT in Applied Technical Leadership	12	14	85.71%
	UND General Studies	784	837	93.67%
SASH Total		3571	3963	90.11%
Creative & Information Technologies (SCIT)	AAS 3D Modeling & Animation	133	147	90.48%
	AAS Graphic Design Technology	416	451	92.24%
	AAS Information Technologies	1147	1397	82.10%
	AAS Photography Technology	13	13	100.00%
	BT Information Technologies	884	990	89.29%
SCIT Total		2593	2998	86.49%
Engineering & Construction Technologies (SECT)	AAS in Air Conditioning & Refrigeration Technology	375	436	86.01%
	AAS in Construction Technologies/High Voltage Lineman	806	894	90.16%
	AAS in Construction Technology	645	732	88.11%
	AAS in Civil Engineering/Surveying	48	51	94.12%
	AAS in Engineering Technologies – Electrical/Electronics	1	1	100.00%
	AAS in Engineering Graphics & Design Drafting Technologies	78	92	84.78%
	AAS in Engineering Technologies	638	723	88.24%
	AAS in Engineering Technologies – Instrumentation Technology	39	42	92.86%
	AAS in Engineering Technologies – Manufacturing Technologies	1	1	100.00%
	AAS in Industrial Maintenance Technologies	387	451	85.81%
	AAS in Pipeline Integrity Technology	111	126	88.10%
AAS in Power Plant Technology	138	163	84.66%	
BT in Civil Engineering Technology	8	8	100.00%	
BT in Instrumentation Engineering Technology	73	77	94.81%	
SECT Total		3348	3797	88.17%
Transportation & Heavy Equipment (STHE)	AAS in Automotive Collision Repair Technology	1	1	100.00%
	AAS in Automotive Service Technologies – Toyota T-TEN	108	120	90.00%
	AAS in Automotive Service Technologies – Chrysler Mopar CAP	121	136	88.97%
	AAS in Automotive Service Technologies – Ford ASSET	77	90	85.56%
	AAS in Automotive Service Technologies – General Motors ASEP	61	74	82.43%
	AAS in Automotive Service Technologies – Pro-Tech	91	130	70.00%
	AAS in Diesel & Heavy Equipment – CAT Dealer Prep	188	210	89.52%
	AAS in Diesel & Heavy Equipment – Komatsu ACT	91	98	92.86%
	AAS in Diesel & Heavy Equipment – Truck Technician	274	334	82.04%
	AAS in Diesel & Heavy Equipment – WEDA Technician	149	162	91.98%
STHE Total		1161	1355	85.68%
Grand Total		10673	12113	88.11%

The assessment measures vary from program to program. The measures include portfolios, research papers, persuasive speeches, service-learning projects, tests, labs, observation assessments, etc., and are tied to courses within each program. A review of program assessment data takes place during the summer semester. Changes are made to assessment plans for the next academic year based on this data, program advisory group recommendations, classroom observations, and changes within industry. All program outcomes were developed from school/program mission and vision statements and were directly linked to the university system missions and visions. These program outcomes are spelled out in the academic assessment plans.

III-2. *What were the analyses and findings from the program outcomes assessment?*

Note: OSUIT's ten academic schools were merged into four schools as of July 1, 2019. Program outcomes are reported under the new school headings.

A cursory review of the data suggests that all data may not have been collected or may have been collected but not entered. Further, the placement of the data in the Banner student information system, based on numbering rather than labeling, could have polluted the data resulting in inaccurate information and misinterpretation of results. Upon further investigation, Banner fields for assessment scores were numbered rather than labeled, and faculty likely did not enter data consistently based on the number of the assessment field. The Assessment Committee is currently investigating an alternative method for collecting and managing assessment data through a pilot program in the School of Arts, Sciences & Health.

School of Arts, Sciences & Health

The Allied Health Sciences program focused on core outcomes and identified training needs in industry to be addressed in this program. New program outcomes were written for the coming year. Current curriculum will be assessed according to new and extant program outcomes. Applied Technical Leadership is in its first year. The assessment process is under development during the 2020-2021 academic year. The focus of the Business program was on core outcome of Critical Thinking. Modification to Computer Literacy (CS 1013) classes led to comparison of DFWI rates with results for previous terms. Slight improvement in DFWI rates may have been mitigated by issues created by widespread online instruction, and some faculty would benefit from additional training in online instruction. Culinary Arts revised assessment instruments and created new ones to allow for the collection of data specific to program goals and objectives. These instruments were put in place throughout the academic year. Nursing program analysis determined that current assessment tools are not collecting the data needed to evaluate individual student performance of the course learning outcomes (CLOs). Modifications were necessary for more accurate assessment of performance on CLOs. Other programs are awaiting the analyses in the Allied Health Sciences program before development of new program outcomes.

School of Creative & Information Technologies

There is a general improvement in Information Technologies programs on the number of courses assessed as 'high risk' due to elevated DFWI rates on assessment measures. Analysis revealed that, within the ABET outcomes measured this year, most of the low assessment scores were concentrated in a handful of lower division courses. In 3D Modeling &

Animation and Graphic Design Technology, program outcomes were evaluated as sufficient for the current academic year. New assessment measures were created for program outcomes; data on these measures will be analyzed at the completion of the next assessment cycle.

School of Engineering & Construction Technologies

In the Air Conditioning & Refrigeration Technology program, evaluation of outcomes led to revisions that described skills attainment while adding focus on knowledge and comprehension of those skills. Analysis of program outcomes in Construction Technology revealed a need for better calculation skills as applied in the industry, particularly for those in the Electrical Construction option. Assessments in the Construction Management option showed that students were satisfactorily meeting objectives based on the current curriculum. Previous changes in the High Voltage Lineman program led to student confidence and perceived safety, thereby allowing them to improve focus on climbing technique. In the Civil Engineering/Surveying Technologies AAS program, evaluation continues after substantial faculty changes last year. Industry partner feedback will continue to advise decisions in revising program outcomes and objectives. In Engineering Graphics & Design Drafting Technologies, efforts to increase rigor and collaboration achieved the desired results. Previously in the Engineering Technologies – Electrical/Electronics Technologies AAS and Instrumentation Engineering Technologies BT programs, failure of students to turn in lab assignments led to lower assessment scores, and provision of additional tutoring resulted in score improvements; the lower aggregated scores were determined to be from students not turning in lab assignments correctly or instructors failing to enter the results correctly. In the Natural Gas Compression option of the Industrial Maintenance Technologies program, analysis of revised assessments for the Engine-Electrical course revealed little change from previous assessments. However, the analysis also pointed to a need for improved data collection and record-keeping. In the Pipeline Integrity Technology program, additional safety training from industry partners had previously been implemented in response to newly emerging safety standards. Analysis revealed non-traditional students brought positive results to the classroom environment due to their level of focus and preparedness. For the Power Plant Technology program, student outcomes met expectations in Plant Operation, Plant Controls, Capstone II, and internships.

School of Transportation & Heavy Equipment

In Automotive programs, administrators and faculty determined that there were too many Outcomes and Objectives, and faculty did not know what to assess. The decision was made in 2019 to develop a new assessment plans for these programs; these new plans provided information useful for monitoring and to improve the programs; analysis pending. Adjustments to blended instructional delivery required a change in focus to keep students engaged even though the hands-on components of classes were reduced to minimum levels. In Diesel & Heavy Equipment, it was likewise necessary to develop a new assessment standard to accommodate online delivery. Faculty completed a review of outcomes and found a need to improve participation in online lectures to keep students accustomed to more hands-on experiences engaged in the education process.

III-3. *What instructional changes occurred or are planned in the programs in response to program outcomes assessment?*

School of Arts, Sciences & Health

In Allied Health Sciences, no changes were made to the curriculum, but the assessment plan was revised; new program outcomes were created based on current issues and trends in the healthcare industry. New program outcomes will be reviewed and evaluated in summer 2021 and may provide direction for revisions in other programs in the School of Arts, Sciences & Health.

The Business program review resulted in the Computer Literacy & Applications course (CS 1013) being modified in spring 2020 in order to reduce its DFWI rate. Changes included a drastic cut in the number of assignments, especially those which did not directly contribute to course learning objectives. A cursory review of the changes showed only minimal improvement in DFWI rates; further review pending.

Overall program review in Culinary Arts suggested that students would benefit from an increased focus on mathematical skills such as measurements and conversions. The National Restaurant Association identified six objectives specific to mathematical functions that could be used to inform the addition of an objective. Several courses were modified for theory and lab content and credit. Several lab courses were changed to theory/lab courses as face-to-face instruction was reduced due to issues arising from the COVID-19 pandemic.

Courses in the Enterprise Development, Pre-Education, and Pre-Professional programs were adjusted concerning the mathematics subject area according to the need for assessment tools for mathematics courses required by specific degree programs. Assessment tools were also adjusted due to the needs of students. A closer examination was also necessary due to the COVID-19 pandemic.

In the Nursing program, Student Learning Outcomes and Course Learning Outcomes were reviewed and revised. The Course Learning Objectives were written for each course and aligned with the Student Learning Outcomes showing progression from first semester through fourth semester utilizing both Benner's Novice to Expert theory and Bloom's taxonomy.

School of Creative & Information Technologies

Per ABET direction where they redefined the learning outcomes for Information Technologies programs, all student outcomes, performance indicators, and their measures will be revised in advance of the next accreditation review. Assessment measures were reconsidered during the 2019-2020 academic year, and new measures were developed for both 3D Modeling & Animation and Graphic Design Technology programs.

School of Engineering & Construction Technologies

In Air Conditioning & Refrigeration Technology, after discussion, a lab manual was revised with updates based on lab equipment upgrades; formatting and verbiage were adjusted where

students consistently require explanation and clarification of concepts. In the Construction Management option of the Construction Technology program, class projects are transitioning to using more resources, such as real versus hypothetical project blueprints, for student use. The Electrical Construction option, with the addition of a new Electrical Calculations course, will provide students with more practical application of industry-related mathematical operations. In the High Voltage Lineman program, no instructional changes were implemented.

No changes were noted in Civil Engineering/Surveying Technologies and Engineering Graphics & Design Drafting Technologies programs. The Instrumentation Engineering Technology program worked on several educational changes, some in dealing with donated equipment and its integration into the classroom. Also, select courses are being modified for a blended or hybrid delivery while electing not to convert courses to a purely online format.

In the Pipeline Integrity Technology program, the more focused and prepared non-traditional students may be encouraged to play a modeling role for traditional students who seem less focused and prepared for classwork. The Natural Gas Compression Technologies option in Industrial Maintenance Technologies and the Power Plant Technology program plan to continue collecting outcome data; leaders in Power Plant Technology are also working toward changes that will promote a more diverse enrollment to extend into the workforce.

School of Transportation & Heavy Equipment

With new assessments in place for less than a year, faculty in this school found themselves adapting to increased online delivery of course content as hands-on and face-to-face content was reduced to minimum levels. Faculty focused on increasing student participation during lecture periods to keep them engaged in the learning process. Other instructional changes occurred at the program level, such as moving from electrical trainers to working on actual machines in the Komatsu ACT program, and improved scheduling of hands-on activities so battery powered tools shared throughout the department could be available during class time in the Western Equipment Dealers Association Technician program.

Section IV – Student Engagement and Satisfaction

Administration of Assessment

IV-1. *What assessments were used and how were the students selected?*

Course Evaluations - At the end of each term (based on seven-week or full semester classes), all students were asked to voluntarily complete a course evaluation for each class in which they were enrolled. Administration of course evaluations using the *Class Climate Course Evaluation System* (Scantron) for all credit bearing classes began in summer 2017 and continues to present. The response rate for academic year 2019-2020 was 46.2 percent.

Graduation Survey – Each graduating student was asked to complete the *Graduation Survey* during his or her last semester at OSUIT prior to graduation. Administrative assistants and program advisors directed students who applied for graduation to complete a *Graduation*

Survey preferably within the last two weeks before graduation. The response rate for academic year 2019-2020 was 47.1 percent.

Student Satisfaction Inventory (SSI) and Priorities Survey for Online Learners (PSOL) -

The *SSI* and *PSOL* are nationally recognized instruments comparing institutional data with normative data collected from other institutions for benchmarking purposes. The instruments use Likert-type ratings of satisfaction for comparisons of means while also gathering data on the importance of the mean scores for context. Results from the OSUIT campus were compared to national norms, while two-year and five-year trends within the institution were identified from previous years' administrations of these instruments.

The paper version of the *SSI* was administered in spring 2020; 43 courses were selected using a stratified random sampling method. Administration of the 40-item paper version in spring 2020 yielded a response rate of 77.2 percent. The *PSOL* was implemented to gather satisfaction information based on the experiences of students in classes with an online component. All students enrolled in a computer-based online or hybrid course were invited to participate in the online administration of the *PSOL*. The response rate for the 2020 administration of the *PSOL* was 29.1 percent.

OSUIT Alumni Survey - The *Alumni Survey* was developed in-house and includes scales for satisfaction in retrospect regarding 1) work-related skills, 2) the educational experience, and 3) educational goals, as well as three summary items reflecting overall satisfaction with OSUIT. The response rate for the 2020 *Alumni Survey* was 6.5 percent.

IV-2. *What were the analyses and findings from the student engagement and satisfaction assessment?*

Course evaluations were used to elicit discussion between faculty and the deans of their respective schools regarding strengths, challenges, and overall classroom management. Results of course evaluations at OSUIT are not shared publicly, but they form the basis for educational changes on an individual basis via feedback for each instructor.

The satisfaction scales on the *Graduation Survey* revealed an increase in favorable responses from graduating students in almost every area of the college experience. In terms of academics, highest satisfaction was reported for "Professionalism of instructors" and "Quality of instructors in my major program of study."

On the *SSI*, OSUIT benchmark comparisons with the national group showed that OSUIT exceeded the national benchmark for Academic Advising Effectiveness. The year-to-year comparison at OSUIT revealed that satisfaction in 2020 increased for Instructional Effectiveness, Student Centeredness, Academic Advising Effectiveness, and Campus Services. However, Safety and Security showed a marked decrease in satisfaction this year, and the difference was statistically significant (0.22, $p < .01$). Although there was no difference between 2019 and 2020 regarding the item "The campus is safe and secure for all students", student satisfaction with Safety and Security decreased for the items "The amount of student parking space on campus is adequate", "Security staff respond quickly to calls for assistance" and, to a lesser extent, for the item "Parking lots are well-lighted and secure." In 2019, positive responses to parking issues were a surprise as the protracted parking lot renovation project was ending during the 2019 spring term. However, in spring 2020, only

months after the renovations were completed, satisfaction with parking declined, though not to the levels seen prior to 2019.

For online students responding to the *PSOL*, satisfaction between OSUIT online learners and the benchmark national comparison group was different; the national group on average was more satisfied with Enrollment Services, Student Services, and Academic Services than OSUIT online learners. OSUIT responses, this year as in most years, continued to reflect similar concerns as those of the national comparison group while also continuing to run slightly lower both on satisfaction and on importance.

Alumni expressed the highest levels of satisfaction with the education they received generally, the help they received in achieving their educational goals, and the career skills received. Lower satisfaction was reported in areas that may differentiate students in technical programs from those in general education majors, particularly in the areas of gaining off-campus field experience and student clubs and organizations, which are seldom included in the general education programs.

The Institutional Research page of the OSUIT website provides links for each of the reports and instruments on satisfaction and engagement mentioned above.

IV-3. *What changes occurred or are planned in response to the student engagement and satisfaction assessment?*

OSUIT has completed related projects and has new projects and initiatives in place. However, these initiatives primarily focus on specialized program accreditation. Changes mainly resulted from individualized feedback to instructors through course evaluations. Student satisfaction results as assessed with the *SSI*, *PSOL*, *OSUIT Graduation Survey*, and *OSUIT Alumni Survey* are available to academic leaders; however, current events have led to efforts focused on dealing with educational delivery methods and transitioning to maximized distance learning.

School of Arts, Sciences & Health

Focus in the School of Arts, Sciences & Health dealt primarily with reconsideration of the Core Outcomes and conversion of face-to-face classes for distance learning in the wake of the COVID-19 pandemic and social distancing requirements. Course evaluation feedback was critical for continued assessment of issues in individual classes; however, broader efforts at integrating student satisfaction were less of a concern in the current climate.

School of Creative & Information Technologies

The School of Creative and Information Technologies was primarily focused on ABET accreditation issues in Information Technologies courses. As in the past, student involvement in the lower division courses continued to be a challenge. Projects that take multiple weeks to complete assessing overall understanding of course material have been avoided by sets of students. Efforts continue to introduce mandatory study hall events linked to a “professional development” grade within certain courses to encourage students to attend and learn to proactively complete major projects. Changes are planned for reductions in unnecessary

workload, aligning more class content with associated textbooks, and combining class elements to reduce redundancies. While Information Technologies courses had already been converted to online delivery, conversion efforts in Creative Technologies courses were necessary due to social distancing requirements.

School of Engineering & Construction Technologies

In response to the student engagement and satisfaction assessment combined with revision of course delivery methods due to the impact of the COVID-19 pandemic, several changes were necessary. Courses were re-evaluated to minimize hands-on training and maximize distance learning in a blended course format. Instructors were provided tools and training for more effective use of distance learning methods and the learning management system. Much of the instructors' focus turned to making lectures more participative to maintain student engagement.

School of Transportation & Heavy Equipment

In response to the student engagement and satisfaction assessment combined with revision of course delivery methods due to the impact of the COVID-19 pandemic, several changes were necessary. Courses were re-evaluated to minimize hands-on training and maximize distance learning in a blended course format. Instructors were provided tools and training for more effective use of distance learning methods and the learning management system. Much of the instructors' focus turned to making lectures more participative to maintain student engagement.

Section V – Assessment Budgets

Provide the following information regarding assessment fees and expenditures for 2019-20:

Assessment fees	\$72,000
Assessment salaries	\$102,596
Distributed to other departments	\$0
Operational costs	\$33,150
Total Expenditures	\$135,746

Respectfully submitted December 4, 2020
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