

McKendree University

Assessment 2.1

Learning Outcome: **INQUIRY AND PROBLEM SOLVING**

Students will develop and apply analytical, critical thinking, and problem-solving skills.

Objective 1: Students will use mathematical reasoning to solve problems.

Assessment Instrument: Quantitative Literacy rubric
Participants: Students enrolled in general education courses fulfilling the mathematical reasoning requirement
Data Collected: Every semester
Data Aggregated: By academic year
Instrument Scale: 1 = Novice, 2 = Basic, 3 = Proficient, 4 = Advanced
Target Goal: Mean score of 2.00 or higher
Assessment Results:

Indicator	2017-2018		2018-2019	
	n	M	n	M
Interpretation	71	3.21	85	3.21
Representation	36	3.11	59	3.17
Calculation	73	3.30	93	3.03
Communication	34	2.97	51	3.06
TOTAL	74	3.23	93	3.20

Objective 2: Students will use computers to solve problems.

Assessment Instrument: Computer Literacy and Competency rubric
Participants: Students enrolled in general education courses fulfilling the computer competency requirement
Data Collected: Every semester
Data Aggregated: By academic year
Instrument Scale: 1 = Beginning, 2 = Low Intermediate, 3 = High Intermediate, 4 = Advanced
Target Goal: Mean score of 2.00 or higher
Assessment Results:

Indicator	2016-2017		2017-2018		2018-2019	
	n	M	n	M	n	M
Connecting	208	3.38	251	3.43	160	3.38
Creating	207	3.48	260	3.48	160	3.38
Abstracting	179	2.83	222	2.98	153	3.12
Analyzing	204	3.05	203	2.97	159	3.10
Communicating	201	3.01	249	3.53	161	3.54
TOTAL	223	3.16	261	3.28	162	3.31

Objective 3: Students will use the scientific method to evaluate the validity of information.

Assessment Instrument: Science and Nature rubric
Participants: Students enrolled in general education courses fulfilling the science and nature requirement
Data Collected: Every semester
Data Aggregated: By academic year
Instrument Scale: 1 = Beginning, 2 = Low Intermediate, 3 = High Intermediate, 4 = Advanced
Target Goal: Mean score of 2.00 or higher in lower-level courses and 3.00 or higher in upper-level courses
Assessment Results:

Indicator	2016-2017						2017-2018						2018-2019					
	Lower-level		Upper-level		Total		Lower-level		Upper-level		Total		Lower-level		Upper-level		Total	
	n	M	n	M	n	M	n	M	n	M	n	M	n	M	n	M	n	M
Language and terminology	9	3.44	18	2.33	27	2.70	127	3.46	47	3.53	174	3.48	74	3.11	33	3.36	107	3.19
Communicate scientifically	9	3.67	18	2.28	27	2.74	115	3.33	47	3.38	162	3.35	58	2.93	33	3.33	91	3.08
Use scientific method	9	2.89	18	2.56	27	2.67	71	3.20	30	3.70	101	3.35	57	3.19	33	3.21	90	3.20
Evaluate scientific quality of information	9	3.11	18	2.28	27	2.56	101	3.39	0	N/A	101	3.39	57	3.14	33	3.18	90	3.16
TOTAL	9	3.28	18	2.36	27	2.67	127	3.33	47	3.46	174	3.37	74	3.04	33	3.27	107	3.11

Significant Changes

2016-2017: Developed and implemented Quantitative Literacy, Computer Literacy and Competency, and Science and Nature rubrics.