

Spring 2017 Core Curriculum Assessment Results

of

**Knowledge 1 – Mathematics, Social and Natural Sciences,
Engineering and Technology**

from the

Science

Core Curricular Area



For more information about UA Little Rock Core Curriculum Assessment, please visit:
<http://ualr.edu/facultysenate/councils-and-committees-of-the-faculty-senate/council-on-core-curriculum-and-policies/>

Science

Knowledge 1 – Mathematics, Social and Natural Sciences, Engineering and Technology

Assessed Courses

Data for this report was collected from the following Core courses:

ANTH 1415 Physical Anthropology
ASTR 1301/1101 Introduction to Astronomy and Lab
BIOL 1400 Evolutionary and Environmental Biology
BIOL 1401 Science of Biology
BIOL 1433 Essentials of Anatomy and Physiology
BIOL 2401 Microbiology
CHEM 1400 Fundamental Chemistry I
CHEM 1402 General Chemistry I
CHEM 1406 General Chemistry for Engineers
CHEM 1409 Chemistry and Society
ERSC 1302/1102 Physical Geology and Lab
ERSC 1304/1104 Earth and the Environment and Lab
ERSC 2303/2103 Historical Geology and Lab
PHYS 1321/1121 College Physics I and Lab
PHYS 1322/1122 College Physics II and Lab
PHYS 2321/2121 Physics for Scientists and Engineers I and Lab
PHYS 2322/2122 Physics for Scientists and Engineers II and Lab

Scoring Rubric

A five-point scoring rubric was used for all data reporting. The table below shows the five levels, the scores assigned to each level, and the general guidelines that Core Area Assessment Committees (CAAC) used to score collected artifacts.

Level	Score	“Assessment of this artifact indicates that the student...”
Advanced	4	“... was successful at ...”
Proficient	3	“... attempted and was usually successful at ...”
Novice	2	“... attempted but was not always successful at ...”
Not Met	1	“... made little attempt at ...”
Absent	0	“... made no attempt at ...”

Data Interpretation Method

The Results presented in this document are reported by Learning Outcome and by Teaching Modality. The arithmetic mean for each level (Advanced, Proficient, Novice, and Not Met) was calculated based on the total number of artifacts that scored at each level divided by the total number of artifacts scored overall, with the number of Absent level artifacts removed from the total.

$$[Level] \text{ Mean} = \frac{\text{Number of } [Level] \text{ Artifacts Scored}}{(\text{Total Artifacts Scored} - \text{Number of Absent Artifacts Scored})}$$

The Results for each Learning Outcome and Teaching Modality are presented in tables, pie charts, and radar charts. Total percentages on tables and pie charts sum to 100%, and total values on radar charts sum to 1.0.

Comments

The following comments are specific items noted by the curricular area at the time of data reporting that may affect interpretation of the Results.

1. *Science reported that in some cases there was no reliability data due to lack of raters.*
2. *Science reported difficulty getting data from concurrent sections.*

Results

By Learning Outcome

The tables and charts in this section show the number of artifacts scored at each level for each Learning Outcome, regardless of Teaching Modality type. Absent values listed are artifacts that were collected but could not be scored.

Learning Outcome 1

Students will understand the theoretical perspective used in one or more science discipline.

Level	Number of Artifacts	Percentage
Advanced	112	36%
Proficient	79	25%
Novice	64	20%
Not Met	60	19%
Totals	315	100%
Absent	45	

Learning Outcome 2

Students will understand observational and experimental methods used in one or more of the sciences.

Level	Number of Artifacts	Percentage
Advanced	126	41%
Proficient	80	26%
Novice	70	23%
Not Met	29	10%
Totals	305	100%
Absent	38	

Learning Outcome 3

Students will understand applications and limitations of the sciences.

Level	Number of Artifacts	Percentage
Advanced	143	50%
Proficient	66	23%
Novice	33	11%
Not Met	47	16%
Totals	289	100%
Absent	7	

Science

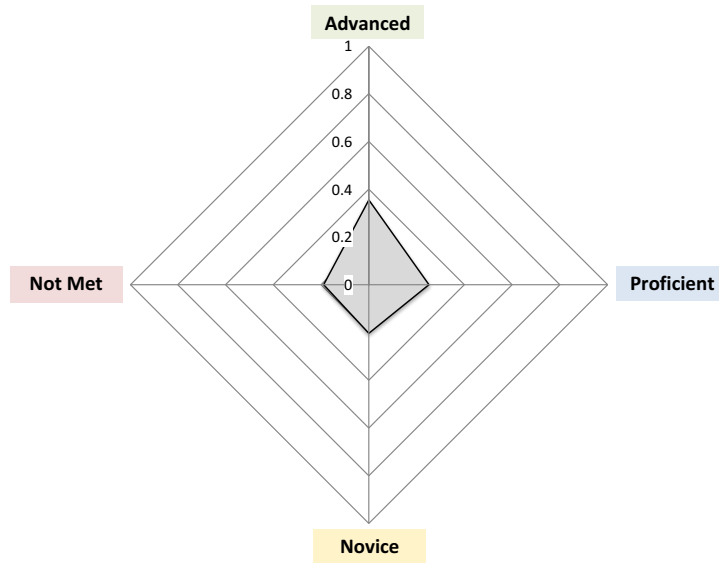
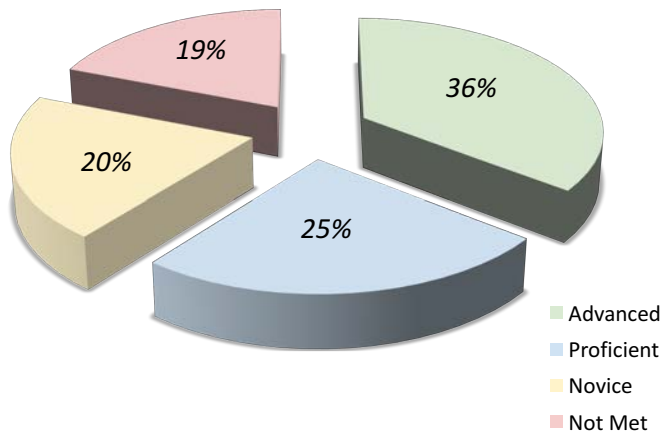
Knowledge 1 – Mathematics, Social and Natural Sciences, Engineering and Technology

Results

By Learning Outcome

Learning Outcome 1

Students will understand the theoretical perspective used in one or more science discipline.



Science

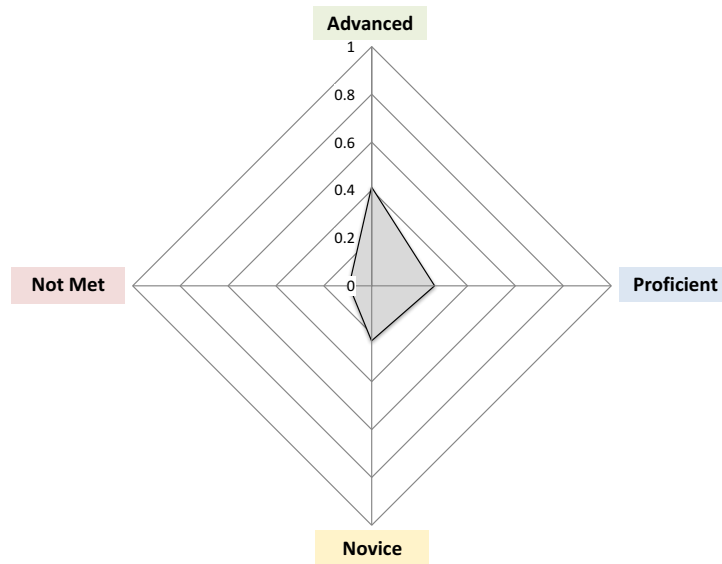
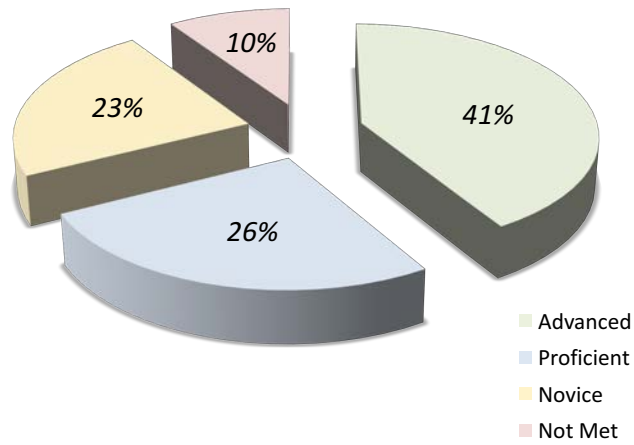
Knowledge 1 – Mathematics, Social and Natural Sciences, Engineering and Technology

Results

By Learning Outcome

Learning Outcome 2

Students will understand observational and experimental methods used in one or more of the sciences.



Science

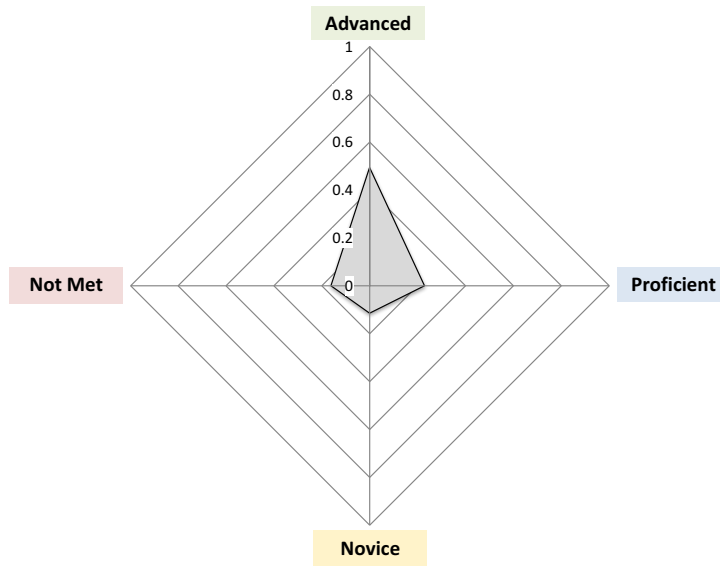
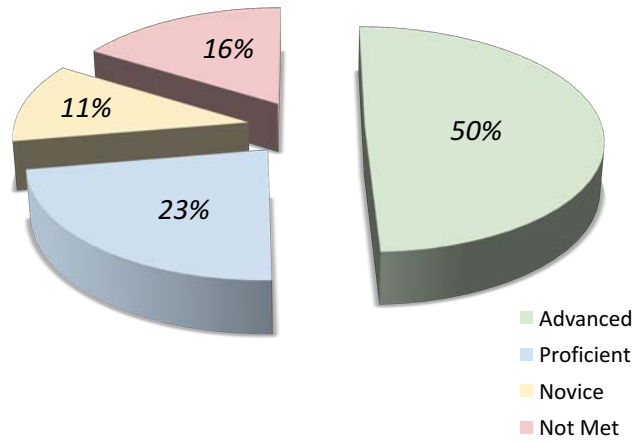
Knowledge 1 – Mathematics, Social and Natural Sciences, Engineering and Technology

Results

By Learning Outcome

Learning Outcome 3

Students will understand applications and limitations of the sciences.



Science

Knowledge 1 – Mathematics, Social and Natural Sciences, Engineering and Technology

Results

By Teaching Modality

The tables and charts in this section show the number of artifacts scored at each level for each Teaching Modality, regardless of Learning Outcome type. Absent values listed are artifacts that were collected but could not be scored.

Face-to-face

Students were taught in a traditional face-to-face classroom setting.

Level	Number of Artifacts	Percentage
Advanced	299	43%
Proficient	154	22%
Novice	119	17%
Not Met	125	18%
Totals	697	100%

Absent	56
--------	----

Online

Students were taught in an online teaching setting.

Level	Number of Artifacts	Percentage
Advanced	58	41%
Proficient	44	31%
Novice	30	21%
Not Met	11	8%
Totals	143	100%

Absent	59
--------	----

Concurrent

High school students that are enrolled in UA Little Rock Core courses.

Level	Number of Artifacts	Percentage
Advanced	24	35%
Proficient	27	39%
Novice	18	24%
Not Met	0	0%
Totals	69	100%

Absent	0
--------	---

Science

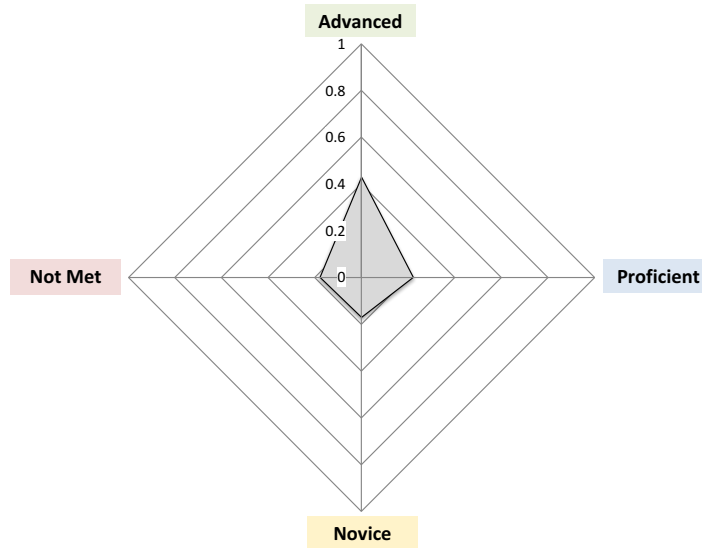
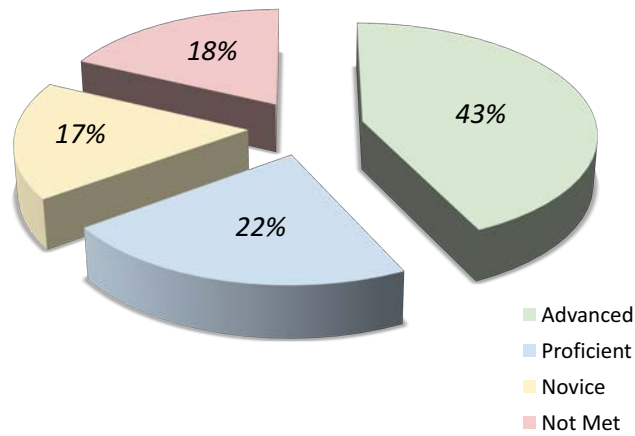
Knowledge 1 – Mathematics, Social and Natural Sciences, Engineering and Technology

Results

By Teaching Modality

Face-to-face

Students were taught in a traditional face-to-face classroom setting.



Science

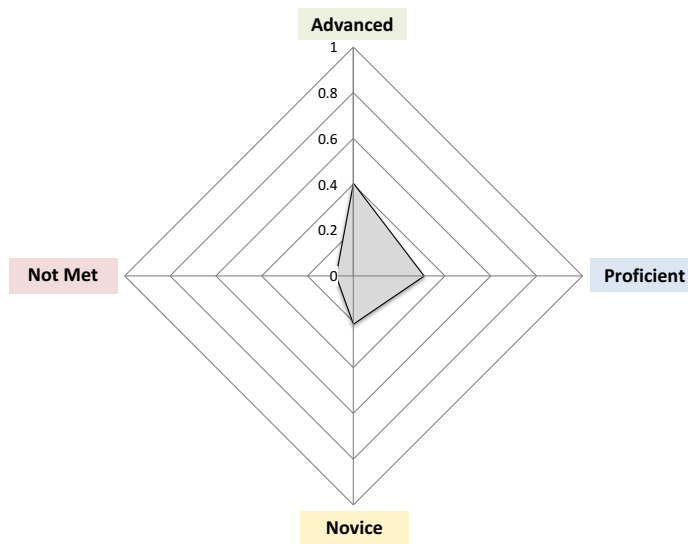
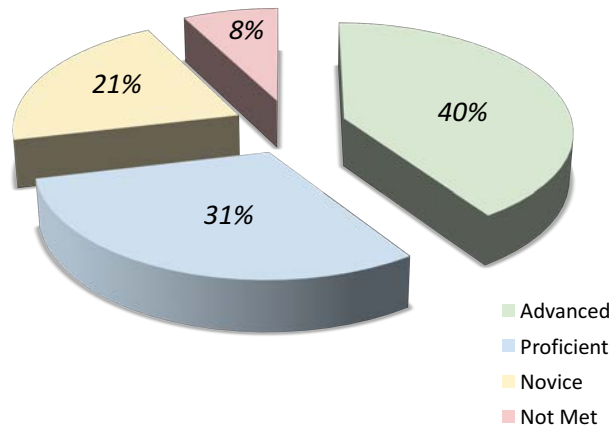
Knowledge 1 – Mathematics, Social and Natural Sciences, Engineering and Technology

Results

By Teaching Modality

Online

Students were taught in an online teaching setting.



Science

Knowledge 1 – Mathematics, Social and Natural Sciences, Engineering and Technology

Results

By Teaching Modality

Concurrent

High school students that are enrolled in UA Little Rock Core courses.

