

# Critical Thinking and Integrated Learning

## Core Curriculum Assessment

# Critical Thinking and Integrated Learning

## Core Curriculum Task Force

# Critical Thinking and Integrated Learning Core Curriculum Task Force

Charge:

**To develop a rubric to measure student learning related to the core curriculum student learning outcome-Critical Thinking and Integrated Learning**

Timeframe:

Fall 2019-Spring 2020

# Critical Thinking and Integrated Learning Core Curriculum Task Force

## Membership

- Task Force Chair

Melissa Gregory, Chair of the Faculty Senate Committee on the Core Curriculum

- Core Curriculum Faculty Members

Kate Bryant

Mathematics and Statistics

Jeanine Diller

Philosophy and Religious Studies

Matthew Forte

Music

Sarah Francis

Psychology

Kristen Geaman

History

Rob Steven

Biological Sciences

- Provost Office Support

Alana Malik

University Assessment Director

# Critical Thinking and Integrated Learning

## Criteria for Evaluation

### Issues and Context

- Identifies and explains issues
- Asks relevant questions
- States thesis, if applicable

### Evidence

- Identifies relevant evidence
- Determines the credibility of sources

### Analysis

- Constructs a logical argument by supporting position with relevant evidence
- Interprets data by identifying bias, context, assumptions, and inferences
- Explains contrasting viewpoints

### Evaluation and Conclusion

- Synthesizes and evaluates information presented
- Explains implications and consequences
- Develops conclusion

# Rubric Design

**CRITICAL THINKING AND INTEGRATIVE LEARNING: UToledo students must be able to integrate reasoning, questioning and analysis across traditional boundaries of viewpoint, practice, and discipline.**

	<b>Developing</b> Artifact <i>lacks adequate</i> evidence of skills necessary to succeed in core-level work.	<b>Proficiency</b> Artifact <i>includes adequate</i> evidence of skills required to succeed in core-level work.	<b>Exceeds Proficiency</b> Artifact demonstrates evidence of the skills required to succeed in core-level work, and indicates readiness to <i>succeed in advanced learning.</i>
<b>Issue and Context</b>			
<b>Evidence</b>			
<b>Analysis</b>			
<b>Evaluation and Conclusion</b>			

# Critical Thinking and Integrated Learning Artifact Collection

# Critical Thinking and Integrated Learning Artifact Collection

Original Timeframe:

Collect student artifacts from Fall 2019 and Spring 2020 courses

**Revised Timeframe Due to COVID-19:**

**Collected student artifacts from Spring 2020 and Fall 2020 courses**



# Sources of Student Artifacts

20 student artifacts selected from each course (n=100)

## Department

- Art
- Philosophy
- Sociology and Anthropology
- History
- Biological Sciences

## Core Curriculum Course

- Art in History
- Critical Thinking
- Race, Class, and Gender
- World History to 1500
- Fundamentals of Life Science  
Lab: Diversity of Life, Evolution,  
and Adaption

# Assignment Purpose/Difficulty Scale

Introduce	Practice	Reinforce	Mastery
Assignment designed to introduce the outcome	Assignment designed to afford student practice with outcome	Assignment designed to reinforce previously practiced outcome	Assignment designed for students to demonstrate level of mastery of the outcome

Source: AAC&U Value Institute Assignment Cover Sheet

# Assignment Purpose/Level of Difficulty

Course	Assignment Type	Purpose/ Level of Difficulty
Art in History	Short Paper/Project	Reinforce
Critical Thinking	Short Paper	Mastery
Race, Class, and Gender	Short Paper	Practice
World History to 1500	Short Essay Paper	Practice
Fundamentals of Life Science Lab: Diversity of Life, Evolution, and Adaptation	Lab Report	Practice

Source: AAC&U Value Institute Assignment Cover Sheets

# Number of Assignments Explicitly Designed to Address:

Issues and Context

4/5

Evidence

5/5

Analysis

3/5

Evaluation and Conclusion

4/5

# Critical Thinking and Integrated Learning

## Analysis and Results

# Critical Thinking and Integrated Learning Review Team

## **Faculty Members**

Tyler Branson

Kate Bryant

Matthew Foss

Kristen Geaman

## **Department**

English Language and Literature

Mathematics and Statistics

Theatre and Film

History

# Methodology

The rubric designed by the task force was developed into a Qualtrics form

Faculty review team members met in the spring to:

- Practice using the rubric in Qualtrics
- Calibrate their scoring
- Provide feedback on the Qualtrics form

Based on the feedback from the faculty review team, the Qualtrics form was revised to include additional items allowing the team members to identify artifacts that did not show evidence of each element of the rubric.

The 100 student artifacts were evenly distributed between the 4 faculty review team members

- 25 artifacts per reviewer
- History faculty team reviewer was not assigned History course artifacts

Faculty review team members read and completed a Qualtrics form for each of their assigned artifacts

# Revised Rubric - Qualtrics

## Issues and Context:

Identifies and explains issue;  
Asks relevant questions;  
States thesis, if applicable

Developing: Artifact lacks adequate evidence of skills necessary to succeed in core-level work

Proficiency: Artifact includes adequate evidence of skills required to succeed in core-level work.

Exceeds Proficiency: Artifact demonstrates evidence of the skills required to succeed in core-level work, and indicates readiness to succeed in advanced learning.

Issues and Context:



Student artifact did not show evidence of

Identifies and explains issue

Asks relevant questions

States thesis, if applicable



# Percent of student artifacts with evidence of:

## Issues and Context

Identifies and explains issues	99%
Asks relevant questions	95%
States thesis, if applicable	82%

## Evidence

Identifies relevant evidence	97%
Determines the credibility of sources	53%

## Analysis

Constructs a logical argument by supporting position with relevant evidence	95%
Interprets data by identifying bias, context, assumptions, and inferences	65%
Explains contrasting viewpoints	71%

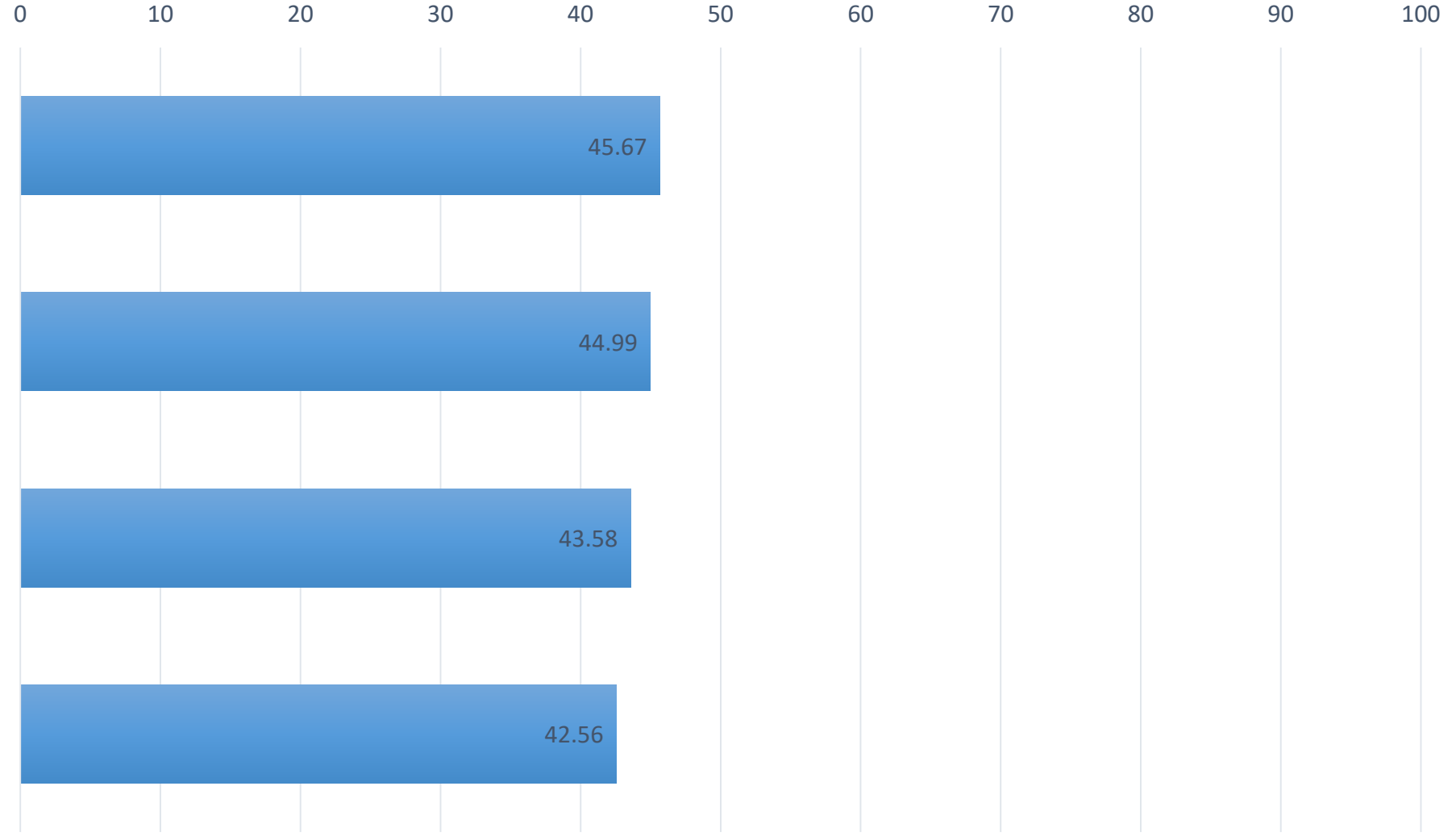
## Evaluation and Conclusion

Synthesizes and evaluates information presented	95%
Explains implications and consequences	85%
Develops conclusion	93%

**Developing**  
Artifact *lacks adequate* evidence of skills necessary to succeed in core-level work

**Proficiency**  
Artifact *includes adequate* evidence of skills required to succeed in core-level work.

**Exceeds Proficiency**  
Artifact demonstrates evidence of the skills required to succeed in core-level work, and indicates readiness to *succeed in advanced learning.*



Issues and Context

45.67

Evidence

44.99

Analysis

43.58

Evaluation and Conclusion

42.56

# Discussion