



The Annual Report for Applied Critical Thinking at RIT

for

2023 - 2024

**Dr. Jennifer L. Schneider, CIH
Eugene H. Fram Chair in Applied Critical Thinking
2024**

Contents

Executive Summary	2
Purpose and Guiding Aims	2
Initiative Framing and Rationale	3
2023-24 Management & Structure of the Initiative:	3
Fram Advisory Board (FAB)	4
International Fram Advisory Board (IFAB)	4
Fram Executive Advisory Board (FEAB)	5
General Education and Program Student Learning Outcomes	6
Applied Critical Thinking Strategic Action Plan (2022-25)	7
Highlights of Accomplishments in 2023-2024	7
Events	8
Management & Engagement	9
2024 Fram Award at Imagine	9
Pedagogy, Teaching and Learning	9
Practice and Assessment	11
Fram Badge & the Mind Field	12
Scholarship	14
External Funding and Partnerships	14
Integration with RIT's Major Goals	15
Challenges to ACT Integration	15
ACT Recommendations	15
Conclusion	16
Appendix 1: History	17
Appendix 2: Learning Outcomes	20
Appendix 3: Fram Award for Excellence in Applied Critical Thinking at Imagine	26
Appendix 4: RIT Global Humanities Conference	28

Executive Summary

In 2023-24, the Applied Critical Thinking initiative at the Rochester Institute of Technology (ACT@RIT) continued under the leadership of Dr. Jennifer L. Schneider. ACT@RIT has begun a new phase of refinement and expansion. Of particular note is the pilot implementation of uniquely focused MIND Field critical thinking experiences for students and new professional audiences. With the Mind Field, RIT advances critical thinking beyond the course, teaching and guiding individuals to use these skills on present, pressing challenges in a focused format. This year, we hosted 15 cosponsored Fram events, with almost 1100 registered participants.

For this academic year, faculty reported 705 scholarly artifacts. Of those artifacts, faculty designated 172 (24%) artifacts as ACT. The opportunity to leverage our ACT@RIT initiative to advance RIT on many fronts is apparent. The academic year 2024-2025 focus areas will be:

- **Visibility and continuous improvement:** Guided by data, the updated Fram strategic action plan, and the three Fram advisory boards to advance ACT goals through events and faculty, student, and community engagement. This especially includes critical thinking about the impacts of AI. The Fram initiative is waiting for the completion of the university strategic plan and will then update the Fram Strategic Action Plan (the current runs to 2025) to reflect university aims.
- **Student success:** Leverage, benchmark data, and create models to support university goals for student retention and success; Engage with the RIT Assessment Office to evaluate student success related to the critical thinking outcomes. This also includes participation and advising of the Gen Ed advisory council and reimagining of Gen Ed at RIT.
- **Graduate education:** Engage and expand the ACT model with the integration of critical thinking into graduate programming and student success.
- **Internal Partnerships and Collaborations:** Increase connections across university initiatives and educational experiences.
- **Complementary learning:** Leverage the applied critical thinking process for the growth of RIT Certified and other complementary ways of learning; such as Mind Fields, cross campus opportunities and collaborative programming for other RIT entities (The SHED, 365, etc.).
- **External Partnerships:** Continue to develop and export the RIT ACT model beyond RIT, including the development of partnerships and seeking external funding opportunities.

Purpose and Guiding Aims

The purpose of this report is to summarize the ACT efforts and accomplishments for the 2023-24 academic year, list recommendations for future efforts, and define benchmarks for the ongoing evaluation of our progress. Establishing the reputation of RIT as a national leader in Applied Critical Thinking relies upon a university-wide commitment coupled with a notable external contribution to the development of Applied Critical Thinking. To ensure success, the university is (1) continuously improving a process grounded in performance measures and student achievement assessment, (2) continually seeking and sharing best practices and opportunities with internal and external partners, (3) integrating high-quality ACT learning opportunities across the student and community experience, and (4) facilitating excellence in the development of Applied Critical Thinking in our students and our world.

Initiative Framing and Rationale

Our global society has high expectations. Decision makers must think critically to assess and strategize within complex, interconnected systems; continually adapt to rapidly evolving technological, aesthetic, and social environments; and manifest new ideas, both individually and collectively. In response, RIT created the **Applied Critical Thinking (ACT@RIT)** initiative to foster the application of critical thinking – in short, *the exercising of effective thinking in any context*. **Application of critical thinking connects this performance chain of knowing-doing-creating**. The initiative is guided by several working definitions, including:

- **RIT University Education Goal and Essential Program Outcome: Critical Thinking** refers to those processes required to understand and evaluate complex claims of various sorts. It involves the evaluation of information, evidence, arguments, theories, and the contexts in which these are encountered. It entails questioning different and competing perspectives and challenging the (sometimes hidden) assumptions and inferences that determine what will count as evidence or argument. Critical thinking is learning to think in a disciplined and evaluative manner, to analyze and interpret the processes by which various claims are made and reliable conclusions are reached ([RIT Essential Outcomes](#)).
- **Critical Thinking Across the Curriculum: Critical thinking is** “the ability to identify, analyze, construct, and evaluate evidence and arguments in a deliberate and rigorous way” or “The growth of educated thinking.” (C. Sheffield, Critical Thinking Across the Curriculum Report, 2014).
- **Fram Advisory Board:** “At RIT, ACT is an active form of engagement, drawing from our diverse domains and deep expertise to address the questions and challenges that we face. As the uncertainties and the magnitude of impacts increase in our complex world, we must now consider a wider range of possible outcomes. To do this well, we need to employ thinking that draws from multiple, diverse environments to more fully inform our evaluation and resultant strategies.” (Fram Advisory Board. [Fram Award at Imagine](#)).

2023-24 Management & Structure of the Initiative:

The ACT initiative is led and the report is compiled by the Eugene H. Fram Chair in Applied Critical Thinking (Fram Chair), Dr. Jennifer L. Schneider, CIH. In addition to her role as the Fram Chair, Dr. Schneider is also a professor in Civil Engineering Technology, Environmental Management and Safety within the College of Engineering Technology at RIT and leads the cross-disciplinary Collaboratory for Resiliency & Recovery at RIT. She has expertise in HAZMAT, risk-based decision-making, and global resilience. The internal Fram Advisory Board (FAB) of Rochester faculty and staff, the Fram alumni-driven Executive Advisory Board (FEAB), and the International Fram Advisory Board (IFAB) all advise Dr. Schneider. Ms. Jennifer DiLucia, Senior Staff Assistant, provided part-time administrative support. Further information on the history of the Fram/ACT initiative can be found in Appendix 1.

Fram Advisory Board (FAB)

Most members of the Fram Advisory Board chose to remain on the board for 2023-24 (Table 1). This board has representation from the colleges, degree-granting units, and Student Affairs. The board members' duties are to guide Rochester-based ACT efforts and advocate for/be a conduit for ACT@RIT.

Table 1: 2023-24 Fram Advisory Board	
<u>Name</u>	<u>Dept./College</u>
Daniele Brown	Student Affairs
Cory Crane	College of Health and Sciences Technology
Mike Eastman	College of Engineering Technology/Associate Dean Representative
Christine Keiner	College of Liberal Arts
Gina Ferrari	College of Art & Design
Sylvia Perez-Hardy	Golisano College of Computing & Information Sciences
Tony Harkin	College of Science
Gregory Babbitt	College of Science
Dorin Patru	Kate Gleason College of Engineering
Rick Lagiewski	Saunders College of Business

International Fram Advisory Board (IFAB)

The International Fram Advisory Board represents RIT's international campuses (Table 3). These board members bring an international point of view and guidance to the initiative. The current members serving renewable terms are:

Table 3: 2023-24 International Fram Advisory Board	
<u>Name</u>	<u>Campus</u>
Leandrit Mehmeti	RIT Kosovo
Francis Brassard	RIT Croatia
Jamaal Pitt	RIT Dubai
Jude Okpala	RIT China

Fram Executive Advisory Board (FEAB)

The Fram Executive Advisory Board is selected from RIT's notable alumni (Table 2). These board members bring an external point of view and guidance to the initiative. The current members are:

Table 2: 2023-24 Fram Executive Advisory Board		
<u>Name</u>	<u>College/Degree</u>	
Peter Bealo	Photographic Science, BS 1980	Consultant in Data Analysis, Public Education Policy, Marketing & Project Management
Joseph Boyd	Chemistry, BS 1977	CEO, Financial Advisor, Boyd Capital
Robert Jacoby	Civil Engineering Technology, BS 1977	Consultant, Former Global Manager at Royal Dutch Shell
Ellen Moser	Computer Technology, Software Science, BS 1981	Treasurer, East County Fellowship Former Executive Director, Kaiser Permanente
Chris Petescia	Graphic Design, BFA 2005	Owner, Kessel Run Ventures
William Standwill	Graphic Arts & Photography; Printing Management & Sciences, Graphic Communications, BS 1988	Head of Commercial, Sherlock Biosciences
Krista Vardabash	Saunders College of Business, EMBA 2012	Corporate Strategy Analyst, Eastman Savings and Loan
Amanda J. Weissman	Electrical Engineering; Materials Science, BS/MS 2009	Lead Systems Engineer, Lockheed Martin

General Education and Program Student Learning Outcomes

The teaching and assessment of ACT@RIT is managed through a comprehensive general education and program strategy founded on student learning and program goals. General education outcomes are codified by governing committees and adopted. The abbreviated outcomes are listed in the professional practice column of the chart below because these inform the building of a competent, professional, and capable critical thinker. The full description of ACT student learning outcomes are in Appendix 2. RIT measures student critical thinking at several opportunities along the student experience as follows:

- University-level Essential Program Outcomes assessed in designated general education courses
- Program learning outcomes
- Cooperative employer feedback
- National Survey of Student Engagement
- RIT's alumni survey

RIT systematically integrates critical thinking across the student experience to develop critical thinking in diverse settings. ACT@RIT is cultivated through learning the value of *defining* the quality of information, *analyzing*, and *developing* a point of view, *solving* complex problems, and *creation*. These elements are embedded into our curriculum and practiced intentionally in ever-broadening and diverse environments of experiential learning. RIT's renowned experiential learning program, the prolific use of projects and teams, community service programs, international experiences and programs, entrepreneurship and research opportunities, and participation in student groups in and out of the classroom are all valuable to the initiative. The ACT skills students develop transfer into every other area of life and are the impetus for growth, professionalism, and creative expression, empowering our alums to realize their unique contribution to our world through whatever path they choose or create. The visual map of the effort is below:

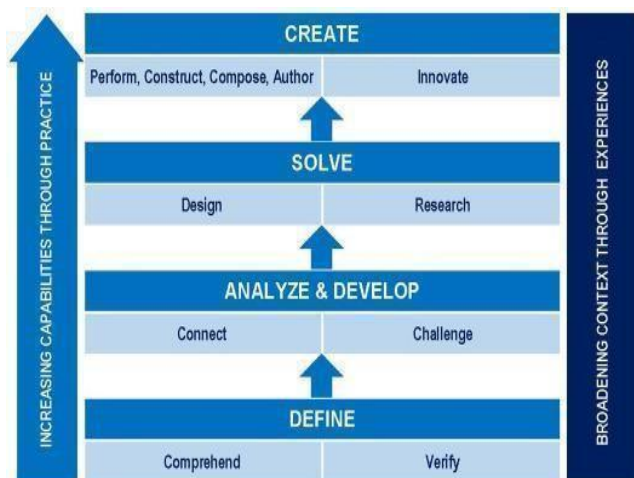


Figure 1: ACT Skill Development Map

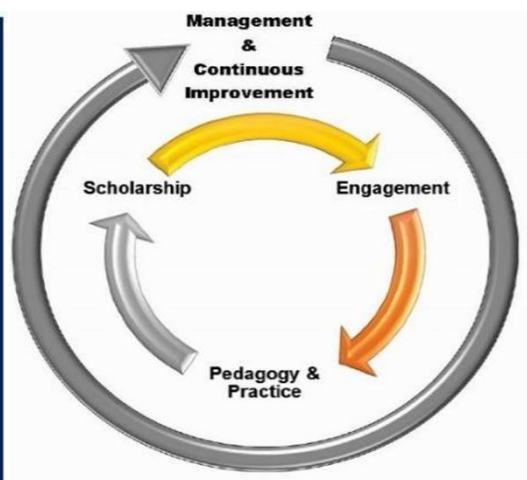


Figure 2: ACT Outcomes Map

Applied Critical Thinking Strategic Action Plan (2022-25)

[The Applied Critical Thinking \(ACT\) Strategic Action Plan \(SAP\) for 2022 -25](#) is meant to guide the ACT initiative and reflect ACT related goals of the Rochester Institute of Technology (RIT) Strategic Plan for 2025. As an initiative focused on a core 21st century skill uniquely manifested by RIT, the ACT effort directly supports university goals and the growth of the university programming and reputation. It is also crucial to the blending and growth of the unique capabilities of RIT. ACT plays a particular formative role in these university goals:

- **GOAL 1:** Enroll and support a diverse mix of increasingly creative, multi-talented students.
- **GOAL 4:** Continue to attract and retain world-class faculty committed to elevating RIT's collective excellence in scholarship, teaching, and service.
- **GOAL 8:** Design and integrate unique curricular experiences at the intersection of RIT's programs in Technology, Art, and Design (TAD). Design new and revise existing programs in non-STEM disciplines that increase enrollment through this same distinctive integrated core.
- **GOAL 16:** Create a distinctive RIT brand and develop a supporting content marketing strategy that makes use of all relevant media.

The Strategic Action Plan (SAP) is through 2025 and corresponds to the university's strategic plan. The SAP is a guidance document reflected in the annual plans of work for the Fram Chair office.

Highlights of Accomplishments in 2023-2024

Accomplishments include 15 total events with almost 1100 participants with the same operational budget first allocated in 2011. We seek to support a broad range of ACT that increases both our impact and our reputation across the campus as a partner in the advancement of applied critical thinking in each domain and across domains.

Events

Events are an important visible mechanism to support engagement both for the RIT community and for the wider community. We had 15 events with nearly 1100 participants.

Date	Event Title	Registered Attendees
8/18/23	Faculty panel on the impact of generative AI on teaching and learning in higher education	185
8/23/24	MIND Field: UWP Fall Retreat	32
9/22/23	Fall Symposium: Teaching & Learning in the Era of Generative AI	62
9/27/23	Using AI tools for extended cognition in the writing and research process	17
9/29/2023 - 9/30/23	Thought at Work Conference	80
10/4/2023 - 10/5/23	Signature Event - Poster Sessions	45
10/5/23	Signature Speaker visited classes (virtual due to Covid)	30
10/5/23	Signature Event - Lecture & Reception	300
10/10/23	MIND Field: Phoenix Group	8
10/27/23	Creepy Critical Thinking: Prebunking as Inoculation against Disinformation	20
11/29/23	"Rewriting": Teaching Students to Do Things with Texts	6
2/5/24 - 2/8/24	MIND Field: Dubai Police: Policy Innovation and Leadership: Critical Thinking, Resilience & Continuity	47
2/23/24	Critical Thinking Applications: A Tour for AI and ChatGPT	30
4/13/24	EDGE (Student Games Showcase)	130
4/8/24 - 4/11/24	Global Humanities Virtual Conference	50
Total		1042

Other events included the following: The Fram Office of Applied Critical Thinking was proud to be a sponsor for the [2024 EDGE Experiential Development & Games Expo](#). The categories for the Showcase were technical excellence, Aesthetics, Game Feel, Experimental, Best in Show, and In Real Life – Expo Floor.

Emerging issues: The efforts surrounding the emergence of AI continued. Dr. Schneider served as a member of the AI Taskforce subcommittee on Teaching and Learning and authored sections of the final report and guidance document. Multiple events focused on teaching and learning with AI. Clearly, the emergence of AI capacity to the masses will change how we provide and assess our capacity as a beacon of critical thinking education.

Management & Engagement

Communication Plan: Ten issues of the Fram Focus newsletter were published, with 14 Community of Practice members featured. These newsletters highlight upcoming Fram events, co-sponsored events, our Community of Practice, and feature relevant news and scholarly articles selected by Eugene H. Fram. The Fram Chair Office was featured in Swartzenberg, F. (2023, September 25) [Upcoming lecture explores how social and political factors impact scientific and medical innovation](#) UNews article.

Social Media: Fram's social media account with X consisted of 145 posts and 4,356 impressions.

Fram Related Service: Success for the Fram initiative means being a visible, engaging campus leader, particularly as it relates to the student learning experience. As part of her broad roles for the provost office, Dr. Schneider is a member of/ participates in the:

- Associate Deans meetings
- Student Success/ Operations Team (N. Buch reports)
- Gen Ed Advisory
- Graduate Council
- Graduate Dean Advisory Committee
- RIT Graduate School Team (informally, through July 2024)
- RIT 365 Experience

2024 Fram Award at Imagine

These awards highlight student achievements in critical thinking for their critical thinking in the development of the exhibit. The annual awards are presented for both small-group and large-group categories. See Appendix 3 for award winners and abstracts.

Pedagogy, Teaching and Learning

Year One/365 course: Dr. Schneider continued her association with Year One or 365 by completing her service on their advisory board. She also presented to students through ACT experiences and activity events. Content related to ACT is integrated into the 365 curriculum, and students complete a baseline perception assessment of their ACT skillset. This supports our ability to develop measures to evaluate their ACT growth over their RIT time. The Fram Office is collecting data and will use the analysis to support continuous improvement.

Teaching Circle: The Teaching Circle was completed. This teaching circle focused on ACT (Applied Critical Thinking) with particular emphasis on developing best practices for (1) student capacity to evaluate information quality and use information from various sources across the disciplines and (2) practicing the art of collegial conversations and critique in the disciplines. Information acuity is a crucial skill broadly developed in general education. In addition to supporting that, this teaching circle aimed to address the need to translate foundational ACT also into discipline-based thinking. Exploration included:

- How do we define information?
- How do we evaluate the claims and data behind the scientific headlines?
- How does public perception impact the view and success of technology and innovation?
- How can we develop skills for conversations and discourse across opposing views?
- Can the skill of critique in art lead us toward more fruitful interactions in other arenas?
- How has our emerging style of knowledge consumption driven differing views of what constitutes fact?
- How should we “research” facts from a variety of sources, including social media?

RIT edX : The RIT edX course, Critical Thinking and Problem-Solving launched in 2017 as part of the Soft Skills Professional Certificate program, which was retired in 2020. The course has been available through the Leadership Essentials Professional Certificate program since July of 2020.

RITx COURSES:

- **CRITICAL THINKING & PROBLEM SOLVING**

Total Enrollments: 35,171 (Increased 61.76%)

Verified (Paid) Enrollments: 9,843 (Increased 87.91%)

- **DESIGN THINKING FUNDAMENTALS**

Total Enrollments: 16,469 (Increased 46.62%)

Verified (Paid) Enrollments: 908 (Increased 71.37%)

- **DESIGN THINKING: Empathizing to Understand the Problem**

Total Enrollments: 3,776 (Increased 55.38%)

Verified (Paid) Enrollments: 709 (Increased 83.78%)

- **DESIGN THINKING: Ideation, Iteration, and Communication**

Total Enrollments: 5,505 (Increased 47.52%)

Verified (Paid) Enrollments: 225 (Increased 55.11%)

- **DESIGN THINKING: Prototyping and User Testing**

Total Enrollments: 2,274 (Increased 45.25%)

Verified (Paid) Enrollments: 155 (Increased 48.39%)

Critical thinking for Graduate Education: As part of the effort to imbue applied critical thinking into graduate education, the Fram Chair was a sponsor of Graduate Education Week on April 11, 2024. Dr. Schneider also engaged with the RIT Grad School to support the GTA Foundations online course required for all Graduate Teaching Assistants, which includes critical thinking elements. In addition, she supported various efforts with graduate student scholarship and research policy and process.

Individual faculty staff support for the development of ACT Teaching and Learning capacity: In 2023-24, the Fram Chair embraced a faculty staff support model for applied critical thinking, providing review and best practice advice for the teaching and learning of critical thinking. Group support/ workshops are included in events. Dr. Schneider provided about 23 individual mentoring and review sessions for faculty upon request, typically either framing the building of lessons and assessments or reviewing faculty drafts.

Practice and Assessment

Community of Practice & Exemplars: Our current Community of Practice (CoP) membership now includes 101 RIT faculty and staff members in the ongoing CoP, CoP of Teaching and Learning, CoP Disaster, and CoP AI. Some of these individuals retired or left RIT.

Assessment: There are more than 700 general education courses with confirmed ACT components and many program-level courses that support ACT@ RIT, by continuing to build our assessment strategy for ACT through these courses. Examples include:

Editorial Illustration

Documentary Field Practices

Advanced Cinematography I

Biomedical Ethics

Principles of Data Science

Computational Thinking and Problem Solving

Introduction to Computer Engineering

Criminology, Social Justice, and Community Action

Longitudinal Study: The assessment processes for ACT continued to be an area of growth. This data examines the growth of student ability to apply critical thinking across their RIT student experience. Over 2023 through fall 2024 the Fram office is collaborating with the RIT assessment office and the colleges to gather and evaluate ACT student data. This data will also inform the student lifecycle longitudinal work.

Student Learning Outcomes & Rubrics: (See Appendix 2). [Assessment results for each outcome are available online](#). Dr. Schneider serves on the General Education Assessment Advisory Board and makes recommendations related to faculty engagement and recognition. The critical thinking outcomes are being evaluated from Fall 2023 through Fall 2024, and therefore, the portion of the data that are evaluated are reported in Appendix 2. Additional data and evaluation will be included in the 2024-2025 Fram annual report including the creation/innovation learning outcome, measured in the capstone experience.

International Campus efforts: Each campus has engaged in applied critical thinking through their representative.

- **Rochester Institute of Technology – Kosovo:** The Fram Chair hosted an engaging workshop on the teaching and learning of ACT attended by 25 faculty. “All the Thinks You’ll Think” on February 10th, 2023.
- **Rochester Institute of Technology – Dubai:** The main critical thinking effort for RIT Dubai this year has been the expansion of the Ethics course offerings (adding PHIL 305: Philosophy of Peace and PHIL 403: Social and Political Philosophy) including opening an official Ethics Immersion. RIT Dubai is creating a shared critical thinking repository for and by faculty.
- **Rochester Institute of Technology – Croatia:** RIT Croatia featured a series of faculty workshops regarding ChatGPT and other AI products and their impact on the teaching and learning process. ACT plays a critical role here, especially in assessing the source and validity of information, as well as the process for generating conclusions.
- **Rochester Institute of Technology, China:** Through the Research Consortium (2023-2024), a team of 3 students engaged in problem-solving research based on two proposals. One of them seeks to improve student learning in synchronous online classrooms by developing an online learning assistance system based on a single-channel Electroencephalography (EEG) device. This system is designed to provide the instructor with a real-time status of students’ understanding and allows the instructor the opportunity to optimize learning. The other research aims to develop a Radio Frequency Identification (RFID) drug management system to help elderly patients adhere to their medication therapies: it is designed to alert them to take their medication, refill their medication, and notify them if the medication has expired. To the benefit of the consortium and the students, they presented their work at the Global Humanities Conference and the Imagine RIT (See Appendix 4).

Fram Badge & the Mind Field

Working with the FEAB, our office continued development of a new experiential opportunity for professionals and students, nominally called the Fram Badge in ACT. Phase 1 of this effort is the creation of the [Mind Field experiences](#) which are focused learning events that are run in a workshop fashion, focused on a particular question the group would like to critically examine in an active format using the ACT learning skills. These facilitated Mind Fields support participant learning in a safe and productive space and inculcate the ACT skill process while also addressing an issue or question in an applied format. While still in the pilot stage, Mind Fields have become an addition to the Saunders College of Business Exec Ed portfolio that returns external (paid participation) resources to the Fram budget. In addition to the external offering, Fram has also created a process to apply for internal Mind Field funding to implement these focused critical thinking learning opportunities for students. The goal is to support student success by building from Mind Fields into a full (recognition) certification (badge) for participation.

RIT Critical Thinking Certification

Initial Certification Track Ideas

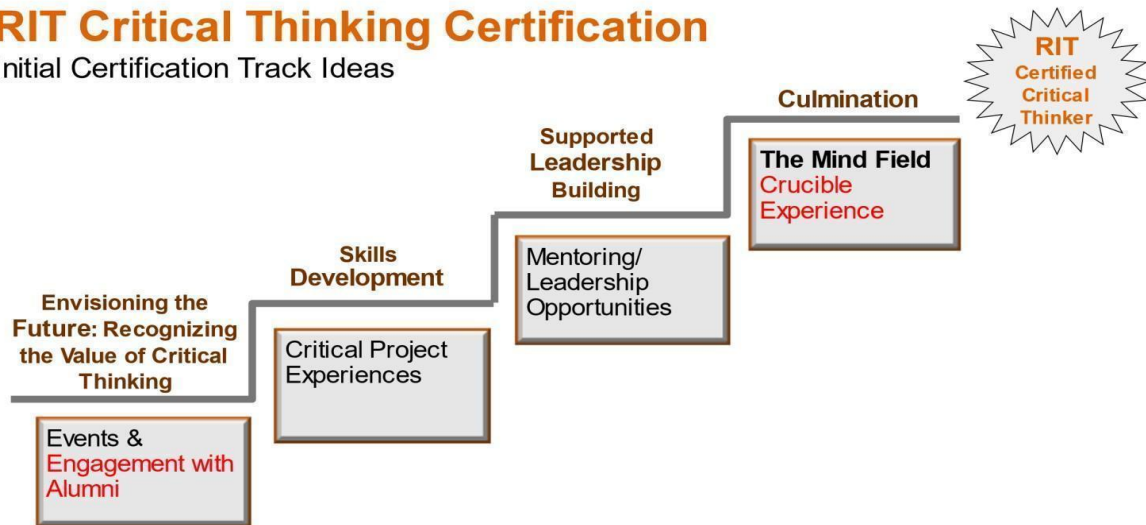


Figure 3: ACT Fram Badge

The Mind field and eventual Fram Badge is an exciting new initiative in the Fram Portfolio. At its core, the Badge will be earned upon completion of a process that includes: 1) engagement with alumni and attendance at events with speakers of significance; and 2) demonstrated development of ACT as part of project and team experiences and completion of a MIND field experience, centered around wrestling with a complex problem for which there is no clear answer nor path to follow, especially in a group inter-major or cultural capacity.

Mind Fields: Workshop format for 137 participants:

- Critical Thinking for Writers: UWP Fall Retreat, August 23, 2024;
- Business Leaders in Training, J. Schneider with K. Varadabash – Phoenix Group, October 10, 2023;
- RIT Dubai Police: Policy Innovation and Leadership: Critical Thinking, Resilience & Continuity, Feb 5-8, 2024;
- The Hero's Journey: Jude Chudi Okpala, Lecturer/ RIT China with Nickalus Rupert, and Jonathan Riccio: This project is part of a course, Mythology and Literature that has enrollment of 110 students—three sections of the course. This project offers students an opportunity to reflect on their experiences and chart them according to the stages in the monomyth. Here are the main questions students will answer, and they will do so in groups of 4 or 5: Using the structures of monomyth, explain how your lives are moving in the path of heroism. How do you encounter and overcome struggles? What do you consider success and how do you achieve it? How do you see yourself as a hero/leader? This assignment leads students to operate at the highest level of Bloom's taxonomy: creation of thought; it equally admits of both creative and critical thinking as it requires students to reflect on their experiences and use the same to develop an argument on how their experiences match the hero's journey. Accordingly, this project fosters critical thinking as it builds on skills of evaluation, reflection, and creation. April 8-11, 2024;

Scholarship

During this year, there were 705 scholarly artifacts. Of those artifacts, faculty designated 172 (20%) artifacts as ACT. Examples include:

- Nur, Nayma Binte, Charles M. Bachmann, and Timothy D. Bauch. "A Comparative Study Evaluating and Enhancing Soil Moisture Retrieval Models for Hyperspectral Missions." Proceedings of the AGU Fall Meeting 2023. Ed. AGU. San Francisco, CA: AGU, 2023. Web.
- Olatunji, Isaac and Feng Cui. "Multimodal AI for prediction of distant metastasis in carcinoma patients." Frontiers in Bioinformatics 3. (2023): 1131021. Web.
- John, Nicholas and Nishant Malik. "Automated discovery of analytical models for epidemic dynamics on coevolving networks." Elsevier Journal of Computational Science 67. 101968 (2023): 1877-7503. Print.

External Funding and Partnerships

Grant Proposal: During this academic year, Dr. Schneider submitted a pre-proposal to the National Science Foundation, 'Collaborative Research: Nurturing Early Engineering Technology/Engineering Student Success by Implementing Gen AI' for \$241,015 in collaboration with faculty from CET / CET Dept. of Civil Engineering Tech & Environmental Mgmt. Unfortunately, the proposal was not advanced.

External Engagement Efforts

RIT continued to engage externally in many efforts and has begun making strides in creating external partnerships and building its reputation over the past year, including:

- Continued a collaborative relationship with the University of South Florida – **A. Helene Robinson, Ed.D., Ed.S.** Director of Critical, Creative, & Design Thinking Program, Arts Integration Coordinator/[USFSM Incredi-Bull](#) Faculty Member, Department of Curriculum, Instruction & Learning/College of Education, to share assessment systems, policies, and strategy. In 2023, USFSM and RIT Fram drafted a conference proposal for NSF, titled, "Proposal for a CCDT (Critical, Creative and Design Thinking) conference." We have had feedback from the program officer and are in final preparation mode for submission summer 2024. We have scheduled an IAMSTEM symposium for September 6, 2024, as well. This is a friendly conversation/co-learning experience for anyone interested. Attendees will gain access to a course with materials/resources and access to ongoing network meetings and collaborations. For an additional \$10, participants can receive a certificate and digital badge for CEU credits.
- **University partner support:** Provided materials to peer university partners upon request. Coming out of the pandemic, it has been extremely challenging for universities to advance teaching and learning initiatives and sharing and benchmarking of efforts is key to success. As a result, we began to share our methodology and tools with similar efforts.
- **Alumni Relations:** Alumni Relations continues to build programming and engagement opportunities for alumni that is relevant to their goals and creates a relationship to the university. Alumni function as the Fram Executive Advisory Board and participate in Fram events. Working with Alumni Relations, Fram has also featured alumni as presenters at Fram events.
- **Mind Fields** (described in section Fram Badge and Mind Fields).

Integration with RIT's Major Goals

The importance of ACT in RIT's long-term strategy is evident. Development of leaders within and at the intersection of technology, art and design requires fostering complex visionary thinking that is grounded in ACT skills. Applied Critical thinking has a role to play in the integrative learning path with RIT, and this effort continues to increase the impact of the ACT effort.

Challenges to ACT Integration

The ACT at RIT initiative faces challenges that must be overcome collaboratively. RIT must continue to foster engagement of our own RIT community by establishing both top-down and bottom-up support and build connections at both the general education and program level, and through extracurricular activities outside degree programs. Advancing RIT's reputation in the university community is of paramount importance. It is a simple truth that there are many priorities and distractions on a college campus that make it difficult to emerge from the crowd of opportunities, particularly without a clear connection to the disciplines that attracted students to RIT. The popular media paints a somewhat negative picture of college students' ability to think and focus beyond self. RIT is proof that our students can and do practice wide critical thinking. Further, learning and practicing critical thinking is difficult, takes time, and is resource-intensive for faculty, students, and classes, requiring a significant commitment on the part of all, including the university itself. ACT must be an expected *and* obvious part of each student's experience, so that the students see and understand their role in developing their own capabilities.

ACT Recommendations

Our efforts in ACT now give us the opportunity to make a significant impact both inside and outside of RIT. The processes, engagement and curricular structures, and best practices are now in place to allow our effort to mature and evolve. The Fram Chair is ultimately responsible for the leadership of the ACT initiative by creating community engagement and integration across the student experience. Our immediate goal is to increase faculty, staff, and student capacity to practice ACT by significantly enriching (or expanding) the student impact.

The opportunity to leverage our ACT@RIT initiative to advance RIT on many fronts is apparent. The academic year 2024-25 is focused on student success across our campuses, faculty teaching and learning of critical thinking, and advancement of internal and external partnerships:

- **Visibility and continuous improvement:** Guided by data, the updated Fram strategic action plan, and the three Fram advisory boards to advance ACT goals through events and faculty, student, and community engagement. This especially includes critical thinking about the impacts of AI. The Fram initiative is waiting for the completion of the university strategic plan and will then update the Fram Strategic Action Plan (the current runs to 2025) to reflect university aims.
- **Student success:** Leverage, benchmark data, and create models to support university goals for student retention and success; Engage with the RIT Assessment Office to evaluate student success related to the critical thinking outcomes. This also includes participation and advising of the Gen Ed advisory council and reimagining of Gen Ed at RIT.

- **Graduate education:** Engage and expand the ACT model with the integration of critical thinking into graduate programming and student success.
- **Internal Partnerships and Collaborations:** Increase connections across university initiatives and educational experiences.
- **Complementary learning:** Leverage the applied critical thinking process for the growth of RIT Certified and other complementary ways of learning; such as Mind Fields, cross campus opportunities and collaborative programming for other RIT entities (The SHED, 365, etc.).
- **External Partnerships:** Continue to develop and export the RIT ACT model beyond RIT, including the development of partnerships and seeking external funding opportunities.

Conclusion

The Applied Critical Thinking initiative has the required components in place to achieve our goals of creating an environment that cultivates advanced critical thinking skills for RIT students and alumni and establishes national prominence and recognition for RIT.

Fram/ACT will continue to cultivate an integrated and future-minded presence at RIT and beyond. This initiative is more important than ever to develop and support effective citizen-leaders that can successfully face the challenges of our evolving world and create a compelling future.

Appendix 1: History

The Eugene H. Fram Chair in Applied Critical Thinking was funded in 2011 by an anonymous RIT alumnus to honor Professor Eugene H. Fram. Gene Fram is a Professor Emeritus of Marketing who retired from RIT in 2008 after 51 years of teaching at Saunders College of Business. He is known for his expertise in the study of retail malls and shopping, Internet retailing, nonprofit and corporate governance, and advertising. Professor Fram received his Ed.D. in Higher Education from the State University of New York at Buffalo, his MS degree in retailing from the University of Pittsburgh, and served as the J. Warren McClure Research Professor of Marketing at RIT. Gene is the recipient of the 1997 Eisenhart Award for Outstanding Teaching and the RIT Presidential Medallion in 2008.

Dr. Clarence Sheffield served as the inaugural Fram Chair from 2012 to 2015, and laid the foundation for the effort, including establishing the first faculty advisory board, writing of the *Critical Thinking across the Curriculum* report, adoption of general education student learning outcomes for critical thinking, engaging faculty and students through small group events and hosting of five speakers.

The effort was reorganized in 2015-16 with the appointment of Dr. Schneider, with the goal of impacting the student experience through faculty engagement and transparent communication. Since that time, major accomplishments have included the seating of three advisory boards comprised of Rochester faculty and staff, international campus faculty, and an external alumni advisory board; creation of two successive action plans that dovetail with university strategy; ongoing measurement and continuous improvement of student critical thinking through data gathering and analysis; implementation of a communication plan including the Fram Focus Newsletter, website, and social media; support of learning initiatives for faculty and students both on campus and through distance learning; and the establishment of the Fram Awards at RIT Imagine. In 2015-16, Dr. Schneider was also supported part-time by Dr. Evelyn Brister of COLA, Philosophy, who created a new course in 'Responsible Knowing'. Dr. Schneider initiated and continues the practice of disseminating an ACT annual report that summarizes efforts and accomplishments. This initiative expanded in 2016-17 with increasing engagement and integration of the effort on the Rochester campus.

External and internal engagement accomplishments include establishment of the Fram External Advisory Board, a social media presence on Facebook and Twitter, a new student-directed introductory video, and a partnership with University News as part of an expanding external outreach effort. The internal curricular efforts include three applied critical thinking experimental courses, an updated information literacy rubric and implementation of an argumentation rubric. Significant campus engagement resulted from fourteen events, Fram signature and collaborative programming, and the beginnings of a faculty/ staff community of practice. In addition to the regular applied critical thinking programming at RIT, more than 600 participants actively engaged in specific Fram opportunities over the course of the academic year.

2017- 2018 saw substantial increase of social media presence on both Facebook and Twitter, proposal of an Association of Independent Technological Universities (AITU) Applied Critical Thinking summit with peer university administrators for 2019, publishing of papers related to the implementation and evaluation of applied critical thinking at RIT, and a critical thinking-centric proposal to Misk-Gates Foundation. Internal efforts include establishment of the International Fram advisory board (IFAB) that includes members from our international campus locations, the very first Provost's Learning Innovations Grants (PLIG) awards, and creation of rubrics for ACT-related analysis and evaluation of creativity and innovation student learning outcomes. Thirteen Fram events and collaborative programming created significant campus engagement. The year-over-year participation increased 4%, more than 850 participants actively engaged in specific Fram opportunities.

In 2018-19, the maturation and integration of the Applied Critical Thinking initiative at the Rochester Institute of Technology (ACT@RIT) continued under the leadership of Dr. Jennifer L. Schneider. Applied Critical Thinking at RIT is framed, functional, and ready to meet greater challenges. We have entered a new phase of ACT efforts on the national stage and were poised to deepen our efforts to fulfill university goals. We have increased on-campus participation 700% over the last 5 years. We hosted 12 college-focused Fram events, and an institute -wide spring lecture and fall signature event set that were very successful. The year-over-year participation increased 61% to an all-time high of 1400 attendees despite the ongoing challenge of capturing interest on our busy campus.

Engagement is more than event attendance, but strategic refinement of university systems for student success. Notable accomplishments are measurable at all RIT campuses, including: implementation of the suite of rubrics for ACT-related student learning outcomes, and initiation of data informed ACT process evaluation; completion of a first-year student perception survey for Rochester that forms a baseline for longitudinal student assessment; establishment of a relationship for future RIT4LIFE opportunities; continued successful university- level offerings including the graduate 'Worldmaking' salon and a critical thinking course through RIT edX; growth in faculty support including resources, rubrics, teaching circle and workshop offerings; initiation of participation and feedback survey for RIT international campuses; and successful planning for the first of its kind Association of Independent Technological Universities (AITU) Applied Critical Thinking Summit, attracting participation for our peer institutions for a summit in August 2019.

In 2019-20, the maturation and integration of the Applied Critical Thinking initiative at the Rochester Institute of Technology (ACT@RIT) continued under the leadership of Dr. Jennifer L. Schneider. ACT@RIT is framed, functional, and ready to meet greater challenges. We have entered a new phase of ACT efforts on the national stage and are also poised to deepen our efforts to fulfill university goals. We have increased on-campus participation 700% over the last 5 years. This year, we hosted 24 cosponsored Fram events, and an Institute-wide fall signature event that was very successful. The year over-year participation increased 64.6% to an all-time high of nearly 2500 attendees despite the challenge of the COVID-19 Pandemic. The measure of our success is not limited to event attendance but defined by our level of engagement and strategic refinement of university systems for student success. Notable accomplishments are measurable at all RIT campuses, including:

- Successful AITU summit of peer universities in August 2019
- Development of unique webinar event series with Alumni Relations and several colleges related to the pandemic (capitalizing on the RIT4Life model).
- Establishment of a unique Community of Practice Disasters that highlighted professors that contribute in this important area.
- Continued growth in faculty support including resources, rubrics, and workshop offerings.
- Initiation of support and engagement of RIT international campus faculty.

In 2020-21, we hosted 18 cosponsored Fram events, and an Institute-wide spring speaker event that was successful. Nearly 1000 attended Fram events this year despite the ongoing challenge of the COVID-19 Pandemic. Temporary administrative support was provided by Linda Lagree, through Datrose, RIT's temporary staffing agency. Linda's temporary assignment ended June 30, 2021 and Ms. Tamaira Brown worked for the Fram chair from August 2021- to July 2022. Ms. Lagree was then rehired to support the chairship in summer and fall 2022. Jennifer DiLucia began working for the Fram Chair in December of 2022.

2022-23, was a successful year despite the pandemic. We hosted 15 events with in-person and virtual participants (1000 total) and expanded the ACT effort and reputation further through the implementation of internal and external partnerships with a broad group of collaborators, successful piloting and implementation of the unique internal and external (corporate) Mind Fields and the integration of GTA training.

In 2023-24, we hosted 15 events, attracting nearly 1100 participants. As artificial intelligence continues to advance and integrate into our daily lives, we aim to understand how to embrace this technology effectively. To this end, we established a new Community of Practice (CoP) group comprising ten members, with plans to expand membership throughout the coming year. Since AI has already created a significant shift in our thinking, Dr Schneider was active on the AI Taskforce, particularly related to the teaching and learning of the impacts of AI. Efforts with all campuses increased and included both faculty training and individual support for curricula development. Working with the assessment office, the Fram office gathered ACT data for evaluation. This effort will continue into 2024-2025. Finally, the Fram office worked with external collaborators at U Florida and Ohio State, among others, to present a workshop on thinking for STEM inclusion, called IAMSTEM, in September 2024.

Appendix 2: Learning Outcomes

FALL 2023 ANALYZE OR CONSTRUCT ARGUMENTS ASSESSMENT RESULTS (HENRIETTA)

Outcome: Analyze or construct arguments considering their premises, assumptions, contexts, conclusions, and anticipating counterarguments



Benchmark: 70% of students will achieve a rubric score of Competent (3) or higher

Courses: ARTH 556, ECON 101, ENGL 210, ITDS 150, PHIL 103, PHIL 306, PHIL 402, POLS 115, POLS 205, POLS 215, STSO 201

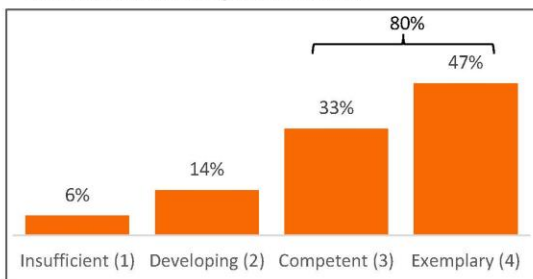
Number of Students Assessed: 430

Key Findings:

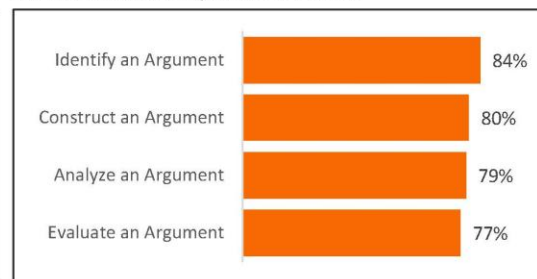
- Benchmark Met
- 80% of students achieved a rubric score of Competent (3) or higher

Next University Assessment: Fall 2027

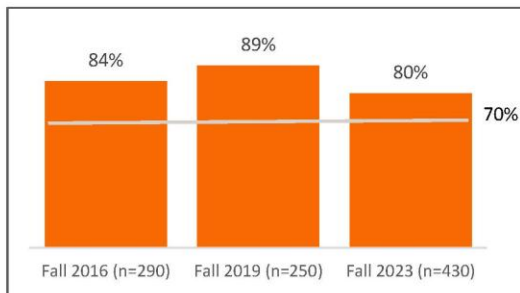
Fall 2023 Results by Rubric Score



Fall 2023 Results by Rubric Criteria



Fall 2023 Trend Results



Findings: The benchmark was exceeded in this assessment with 80% of students scoring a Competent (3) or higher on the rubric. Results were analyzed by rubric criteria and scores were above the benchmark for all criteria. Students scored highest on their ability to *Identify an Argument*. This is the third time this outcome has been assessed, and the percentage of students meeting the benchmark decreased by nine percent from 2019 to 2023. The reason for this decrease is unclear and needs to be discussed further with the faculty teaching the course sections in this assessment sample. This discussion will occur summer of 2024.

Faculty were asked to provide examples of how results were/will be used to improve learning outcomes in their courses. Examples follow:

Table 1: How Faculty Used Results to Improve Analyze or Construct Arguments Courses

ARTH 556	<ul style="list-style-type: none"> • Require students to write a direct explication and critique of a critical text in future semesters. Students are very good at making arguments, but they do less summarizing and critique of other arguments.
ECON 101	<ul style="list-style-type: none"> • Begin the assignment earlier in the semester and allow more time to address student questions in the remaining time.
ENGL 210	<ul style="list-style-type: none"> • Provide additional details in the assignment prompt and go over them in class more than once.

FALL 2023 ANALYZE OR CONSTRUCT ARGUMENTS ASSESSMENT RESULTS (HENRIETTA)

<p>ITDS 150</p> <ul style="list-style-type: none"> Based on this assessment, the assignment was revised for better alignment to the learning outcome. Students had a set of questions/prompts to respond to in learning journal entries in two different weeks. The first week asked them to write an argument related to case studies, and then they had to look for evidence. Then, we had an intervention in class where we talked about and did exercises related to confirmation bias. The second assignment asked them to re-examine their first homework and their evidence and rewrite their arguments. <p>POLS 115</p> <ul style="list-style-type: none"> Incorporate additional questions that require students to think critically and spend more time demonstrating how to answer similar questions. Incorporate the rubric into myCourses and assignments as a guide for the students and a scoring tool. <p>POLS 205</p> <ul style="list-style-type: none"> Focus on in-class demonstration of critical thinking. The primary way to teach this skill is to demonstrate it through following a line of argumentation, or constructing an argument, or showing the foundations of an argument. Another, better way, is to assign a paper and then go through the paper individually. Unfortunately, it is very difficult to do this with 75 students and give them multiple assignments that give them the opportunity to demonstrate improvement. <p>STSO 201</p> <ul style="list-style-type: none"> This assignment was designed for this assessment. I am pleased with the students' collective performance. It is one of four (out of six) optional papers. In a future course, I would consider requiring for all students to complete, or weave elements of it more explicitly into other assignments.
--

Faculty were also asked how to use results from this assessment at the University Level and Department Level. Some of the suggestions follow

Table 2: Faculty Recommended Use of Results for Continuous Improvement

Recommendation	Action Item
<p>University-level</p> <ul style="list-style-type: none"> Expand library resources to include access to important primary source databases in American comics. The library's book collection does not have enough titles to support this course. Advocate for a universal core curriculum for first year students that incorporates critical thinking. Increase university support for the liberal arts and humanities where critical thinking skills are nurtured. Each discipline could integrate content on discarded theories and practices. Guiding students to understand the evolution and self-correction within their respective fields can foster meta-cognitive and creative thinking. Offer faculty workshops related to teaching critical thinking. Reduce the number of students in sections, especially in liberal arts. Proficiency in English should be required including raising standards, especially verbal SAT scores. It is hard to teach logic when students are incapable of basic grammar. Standardize courses taught by several instructors such as ENGL 210 to be more consistent across instructors. 	<ul style="list-style-type: none"> ✓ Share recommendations with RIT Libraries. ✓ Share recommendations with GEC and university leadership. ✓ Current university initiatives include ongoing evaluation of the General Education Framework. ✓ Share recommendation with the Center for Teaching and Learning. ✓ Continue to offer workshops and learning communities related to the general education learning outcomes. ✓ Share recommendations with the College of Liberal Arts Deans Office.

FALL 2023 ANALYZE OR CONSTRUCT ARGUMENTS ASSESSMENT RESULTS (HENRIETTA)

Department-Level <ul style="list-style-type: none">• Give students the opportunity to work on this skill in future coursework and get better at it. Hoping to pair the course with 2nd semester courses to see if what they learn gets transferred.	✓ Research ways to connect concepts from ITDL 150 Metacognitive Approaches to Scientific Inquiry with the broader GE Framework
--	--

Thank you to the RIT Henrietta faculty members who participated in the fall 2023 General Education assessment!

Nathan Dinneen, Department of Political Science, CLA

Elizabeth Hane, School of Life Science, COS

Nikolaus Kasimatis, Department of Economics, CLA

Jessica Pardee, Department of Science, Technology and Society, CLA

Wade Robison, Ezra A. Hale Professor in Applied Ethics, Dean's Office, CLA

Selhan Sahin, Department of Economics, CLA

Stephen Sims, Department of Political Science, CLA

Sean Sutton, Department of Political Science, CLA

Larry Torcello, Department of Philosophy, CLA

Karen Van Meenen, Department of English, CLA

Daniel Worden, School of Art, CAD

For questions contact: Leah Bradley, Director of Educational Effectiveness Assessment, at lbdfp@rit.edu.

FALL 2023 USE RELEVANT EVIDENCE ASSESSMENT RESULTS (HENRIETTA)

Outcome: Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources of information



Benchmark: 70% of students will achieve a rubric score of Competent (3) or higher

Course: ANTH 302, COMM 343, COMM 356, MUSE 220, PHIL 102, PSYC 101, UWRT 150

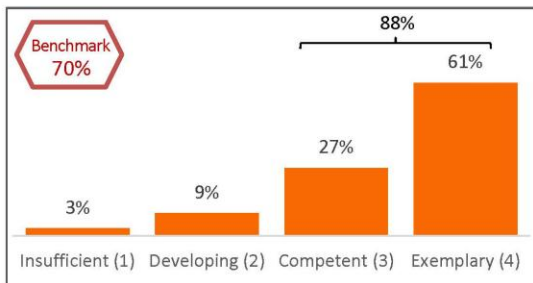
Number of Students: 214

Key Findings:

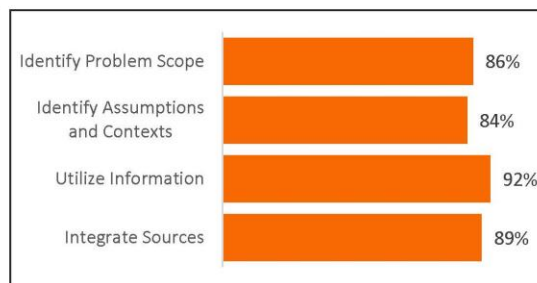
- **Benchmark Met**
- 88% of students achieved a rubric score of Competent (3) or higher

Next University Assessment: Fall 2027

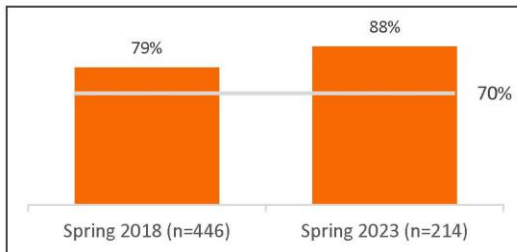
Fall 2023 Results by Rubric Score



Fall 2023 Results by Rubric Criteria



Fall 2023 Trend Results



Findings: The benchmark was met in this assessment with 88% of students scoring Competent (3) or higher on the rubric. Results were analyzed by rubric criteria and scores were above the benchmark for all criteria. Students scored highest on their ability to *Utilize information*. This is the second time that this outcome has been assessed. The trend shows a nine percent increase in the number of students meeting the benchmark from the spring 2018 assessment.

Faculty were asked to provide examples of how results were/will be used to improve learning outcomes in their course. Examples follow:

Table 1: How Faculty Used Results to Improve Courses

<p>ANTH 302</p> <ul style="list-style-type: none"> • Provide more instruction on project expectations related to findings and coding scheme. Those who had an underdeveloped coding scheme for their data also ended up with weaker findings sections. • Provide more detail, both in the classroom and in the written instructions, regarding coding schemes (and their applications to qualitative data) and how to generate findings through meaningful qualitative data analysis. <p>COMM 343</p> <ul style="list-style-type: none"> • Revise the assignment prompt for Final Project to include additional clarity regarding assignment expectations. Revise the rubric to include details about using sources.

FALL 2023 USE RELEVANT EVIDENCE ASSESSMENT RESULTS (HENRIETTA)

<p>COMM 356</p> <ul style="list-style-type: none"> • Include examples to demonstrate model answers. • Provide detailed feedback to show students the strengths and weaknesses of assignment answers. <p>MUSE 220</p> <ul style="list-style-type: none"> • Provide guided instruction to students in class before distributing the assignment. Students continue to perform well if given instruction in class when distributing each assignment component. In the future, will continue to parse out the elements of guided instruction in this way (incrementally). <p>PHIL 102</p> <ul style="list-style-type: none"> • Make the scope and assumptions sections of the scoring criteria worth more going forward. Students put more care and effort into the information section as well as their use of sources. <p>PSYC 101</p> <ul style="list-style-type: none"> • Ensure students keep practicing different forms of critical thinking skills through expanding the number of questions on the current Research Critique assignment. <p>UWRT 150</p> <ul style="list-style-type: none"> • Integrate some rubric language into assignment prompt(s) to be as transparent with students as possible. • Spend more time in the term working on this project, and do more low stakes activities related to using sources effectively.
--

Faculty were also asked how to use results from this assessment at the University Level and Department Level. Recommendations follow:

Table 2: Faculty Recommended Use of Results for Continuous Improvement

Recommendation	Action Item
<p>University level</p> <ul style="list-style-type: none"> • Implement larger campus engagement with Joseph Harris's <i>Rewriting: How To Do Things With Texts</i>. The University Writing Program has already held a workshop on this that was sparsely attended. This needs to be marketed more effectively. • UWP needs more resources (faculty lines in particular) to aid other Writing Intensive instructors across campus in terms of assignment design, utilization of low-stakes/writing to learn/writing to think activities, intentional use of scaffolding and in-class modeling, and more. • Recommend alerting instructors about all of the learning outcomes of their courses. It is a challenge to keep all of the GE outcomes in mind when teaching courses. 	<ul style="list-style-type: none"> ✓ Share recommendations with university leadership. ✓ Share recommendations with the University Writing Program and the University Writing Committee. ✓ Consider ways to map or align outcomes so that RIT faculty can review the outcomes for the courses they teach using the Curriculum Management System.
<p>Department level</p> <ul style="list-style-type: none"> • Consider incorporating a "flashback" to this essay assignment as a way for students to measure their own progress as communicators within the major. 	<ul style="list-style-type: none"> ✓ Share recommendations with Museum Studies program Faculty.

FALL 2023 USE RELEVANT EVIDENCE ASSESSMENT RESULTS (HENRIETTA)

Thank you to the RIT Henrietta faculty members who participated in the fall 2023 General Education assessment!

Keri Barone, School of Communication, CLA

Eleanor Chand-Matzke, Department of Psychology, CLA

Juilee Decker, Department of History, CLA

Matthew Houdek, University Writing Program, University Studies

Christine Kray, Department Sociology and Anthropology, CLA

Francis Marra, Adjunct Faculty, School of Communication, CLA

Colin Mathers, Department of Philosophy, CLA

Andrew Perry, University Writing Program, University Studies

Thomas Stone, University Writing Program, University Studies

David Yockel, University Writing Program, University Studies

For questions contact: Leah Bradley, Director of Educational Effectiveness Assessment, at lbdfp@rit.edu.

Appendix 3: Fram Award for Excellence in Applied Critical Thinking at Imagine

Since applied critical thinking at RIT is an active process, awards are based upon the applicant's ability in their response to show evidence of the quality of the critical thinking process used to arrive at the final outcome of the exhibit. Responses are evaluated to the degree to which they demonstrate excellence in applied critical thinking. <https://www.rit.edu/criticalthinking/fram-chair-award> .

Fram Award for Excellence in Applied Critical Thinking at Imagine Aware Winners are:

2024 Small Group Award Winner: NanoPower Solar Cell & LEDs: Experiment & Explore!:



Team: Katelynn Fleming, Elijah Sacchitella, Mahan Sahafipourfard, Anthony Mazur

Abstract: Ever wondered how solar cells or LEDs work? Turns out, they're closely related. At this exhibit, get your hands on real solar panels and hydrogen-generating tubes to discover how they make electricity and are impacted by shade and time of day.

2024 Large Group Award: BEEBO - Robotic Arm for Education



Team: Sam Hebbar, Barry Richter, Emma Mahoney, Max Barron, Ben Thomas, Andrew Tevebaugh

Abstract: The BEEBO provides an example of control systems that Biomedical Engineering students can watch, manage, and edit to better understand how Control Systems can be set up and applied in a Biomedical setting. A robotic arm is one of many examples of rehabilitative assistive devices.

The Fram Advisory Board also recognizes these teams as Honorable Mentions:

- **DANS - Deaf Athlete Notification System:** Team: Joseph Schneggenburger, Allison Ritter, Patrick Winch
- **Real Estate Club:** Team: Ben Hart, Travis Kong, Bertan Berker, Scott Franco
- **New Age Speakers:** Team: Barak Binyamin
- **Get Inside the Mind of a Learner: Interact with EEG Technology:** Team: Yancheng, Ruiqin Wang, Shuaichen Ge, Jude Chudi Okpala
- **An Augmented Reality-based Assembly Line Training System:** Team: Zhuorui Yong
- **Constellation Cove:** Team: Megan Garcia, J.P Bungart, Tina Chen, Judy Derrick, Jessica Foronda, Nihal Karim, Johan-Marc Miango, Brooke Portz, Jaily Talavera, Julia Tenney
- **RITchie's Day Off!:** Team: Juilee Decker, Riley Mason, Gabrielle Payne, Rebecca Martinez (s) - planning group AND full round of supporters/volunteers: Gabriella Smith, Hannah Barone, Finn Cohen, Carolyn Lee, Bella Paniccia, Isabelle Chau, Nic Feldman, Will Walker, Ines Villegas Costa, Morgan Woodard, Bella Herendeen, Caitlin McCabe, James Rankine, Samya Nasr
- **Moving Sound: Let your dance drive the music:** Team: Hridiza Roy, Aemilia Blais, Olivia Schlichtkrull, Leo Richmond, Manon Immerzeel, Julia Klok, Matias Homar

Appendix 4: RIT Global Humanities Conference



**4th Annual
Global
Humanities
Conference**
Ethics and How We Conduct Our Lives
April 8 - 11, 2024

Postmodernism inaugurated an avalanche of redefinitions of human values. The human community appears comfortable to speak of “post” as a prefix for a new understanding about the nature of humanity. Now, post-truth, posthumanism and the attendant transhumanism, post-racism are all ideas available for redefining the human condition. The results of these ideas include dislodging of the prevailing beliefs as untenable, for example, the distinction between and among humans, animals, and technology, or the fragile and fleeting nature of truth, hence the reduction of the question of ethics, the question of good, human conduct, and ascendancy of artificial intelligence. Yet, without ethics, humanity resorts to barbarism and various phenomena that privilege tendencies to inhumanity, recklessness, social irresponsibility, insecurities, war, hunger, fraudulence, artificial intelligence, to name a few. The theme of the conference, “Ethics and How We Conduct Our Lives,” invites examinations of what we have become as a human community. In the tradition of RIT Undergraduate Global Humanities Conference, the conference brings students from RIT Global Campuses—China, Croatia, Dubai, Kosovo, Rochester— and beyond—to engage the theme.

Session A: April 8, 2024 – AI, Human Acts, and Ethics

Zoom Link - Join

URL: <https://rit.zoom.us/j/95405268267>

Moderator – Zhiyuan Zhang

Time	Speaker
9:45-10:00 AM Rochester	Balancing AI Development with Human Ethics Zihan Xiong, Wuhan British-China School, Wuhan, China
10:05-10:20 AM Rochester	How Digital Disruption Caused by Artificial Intelligence Affects Corporate Social Responsibility - A Perspective Based on Long-Term Corporate M&A Performance Xiaojia Wang, Lu Li, Jiayi Zhang, RIT China
10:25-10:40AM Rochester	
10:45-11:00 AM Rochester	Discussion

Session B: April 8, 2024 – AI, Human Act, and Ethics

Zoom Link - Join

URL: <https://rit.zoom.us/j/97717356364>

Moderator – Keith Weber

Time	Speaker
9:45-10:00 AM Rochester	Whether the Application of ChatGPT in Human Life Conforms to Ethical Frameworks Ziyi Lv, RIT China
10:05-10:20 AM Rochester	Digital Information Technology and Ethics Boxiong Xie, RIT China
10:25-10:40AM Rochester	Artificial Intelligence Kills Humans' Perception of the World Dingmukhammed Aidarbek, RIT Dubai

April 8, 2024

Keynote Address

Zoom Link - Join URL: <https://rit.zoom.us/j/92615357268>

Time	Speaker
9:05-9:10 AM Rochester	Opening Remarks Ryan Tolnay, RIT Rochester Global Education, University Studies and SOIS Liaison Librarian
9:15-9:25 AM Rochester	Keynote Speaker Dr. Neeraj Buch, RIT Rochester Dean of Undergraduate Education and Associate Provost of Student Success
9:30-9:35 AM Rochester	Respondent Jun Ma RIT, China
10:45-11:00 AM Rochester	Discussion

April 9, 2024 - Business Ethics and Responsibility

Zoom Link - Join

URL: <https://rit.zoom.us/j/97966038262>

Moderator – Jingdi Liu

Time	Speaker
9:05-9:25 AM Rochester	Domestic Violence and Gender disparities in Financial Literacy Yuhan Ai, RIT China
9:30-9:45 AM Rochester	Business Ethics Impacts Companies and Communities Fan Yang, RIT China
9:50-10:05 AM Rochester	Physical Exercise in Combatting Depression - Corporate Social Responsibility of Today Neva Vidović, RIT Croatia
10:10-10:25 AM Rochester	Corporates and Conflicts: An Ethical Minefield Syed Hamza Bilal Hussaini, RIT Dubai
10:35-11:00 AM Rochester	Discussion

April 10, 2024 – Ethics of War, Religion, & Care

Zoom Link - Join URL: <https://rit.zoom.us/j/98339743494>

Moderator – Ruiying Jin

Time	Speaker
9:05-9:25 AM Rochester	War and Ethics Judy Abukhadra, RIT Dubai
9:30-9:50 AM Rochester	Charting Frameworks for Liberation Theology in Islam: Sufism, Shi'ism, and Socialism Yesa Aamir, RIT Dubai
9:55-10:15 AM Rochester	The Limits of Game Adaptations for Ethics Education: Insights from Adapting Maus Zhu Yifan, RIT, Rochester
10:20-10:40AM Rochester	Who Should Look after the Seniors? (Problems of Elderly Care and Hospice Care) Zhu Yincan, RIT China
10:45-11:00 AM Rochester	Discussion

April 11, 2024 – Applied Ethics

Zoom Link - Join URL: <https://rit.zoom.us/j/94235816445>

Moderator – Cheng Xin

Time	Speaker
9:05-9:20 AM Rochester	Integrating Ethics in the Learning Process: Brain-Computer-EEG Interface Yancheng Hu, Wang Ruiqin, & Shuaichen Ge, RIT China
9:25-9:40 AM Rochester	Behavioral Dimensions of Smartphone Usage Vito Schuster, RIT Croatia
9:45-10:00 AM Rochester	Moral Behavioral Abduction – A Postmodernist Perspective Huang Shijie, RIT China
10:05-10:20AM Rochester	RFID-Based Drug Management System Yancheng Hu, Wang Ruiqin, Shuaichen Ge, RIT China
10:20-10:30 AM Rochester	Discussion

April 11, 2024

Plenary Speaker

Zoom Link - Join URL: <https://rit.zoom.us/j/94235816445>

Time	Speaker
10:35-10:40 AM Rochester	Introduction of the Plenary Speaker Julie Cecchini-Cook, Associate Dean, RIT Weihai
10:40-10:50 AM Rochester	Xiaoyu Zhu Carnegie Mellon University
10:50-11:00 AM Rochester	Discussion and Reflection
11:00 AM Rochester	Closing Remarks Hillary McCommick, Assiatant Director of Student Services and Global Education Saunders College of Business