

General Education Assessment Plan
General Education Student Learning Outcomes Assessment Plan
Assessment Plan

Rochester Institute of Technology



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Section I. Introduction

RIT is a nationally respected leader in professional and career-oriented education. As a major technical university, RIT offers academic opportunities that provide a strong foundation in the humanities and social sciences and extend far beyond science and technology. The RIT educational experience is a unique blend of rigor and imagination, of specialization and perspective, of intellect and practice.

General education is the foundation and a signature program for the Institute and impacts all students and programs. There is a campus-wide focus on understanding and conceptualizing how RIT constituent groups and programs contribute to student learning and development with respect to general education.

RIT began a comprehensive review of its general education program in 2004. *The General Education: A White Paper for the RIT Community* stated that RIT believes in preparing graduates “for the making of a living and the living of a life, not as two processes, but as one” (G.W. Hoke, *Blazing New Trails*, 1937). RIT’s educational experiences embody one process that reflects both the making of a living and the living of a life. The goal was to design an integrated and coherent set of general education student learning outcomes reflective of RIT’s unique mission rather than two discrete elements.

After highly collaborative and extensive reviews, the general education student learning outcomes and assessment plan were finalized and approved in May 2009. The student learning outcomes reveal an RIT general education experience supportive of the values deeply embedded within students’ professional fields of study and with their interests and expectations.

To determine the extent to which the Institute is achieving its student learning goals, a comprehensive, coordinated, and data-driven system of assessment is being developed and implemented. RIT’s commitment to guide the development and implementation of such a system includes:

- A persistent focus on student learning, performance, and success;
- The use of education and information technologies to systematically collect and analyze student and program data; and
- The use of data to inform planning and decision-making, and to improve its programs, and most importantly, student learning.
- Recognition that assessment is essential to learning, and therefore everyone’s responsibility.

The RIT mission and liberal learning goals drive the general education student learning outcomes assessment system as viewed in the Assessment System figure in Appendix A.

RIT Vision

RIT will lead higher education in preparing students for innovative, creative, and successful careers in a global society.

RIT Mission

The RIT Mission is to provide a broad range of career-oriented educational programs with the goal of producing innovative, creative graduates who are well-prepared for their chosen careers in a global society. The RIT community engages and motivates students through stimulating and collaborative experiences. We rigorously pursue new and emerging career areas. We develop and deliver curricula and advance scholarship and research relevant to emerging technologies and social conditions. Our community is committed to diversity and student centeredness and is distinguished by our innovative and collaborative spirit. Internal and external partnerships expand our students' experiential learning. RIT is committed to mutually enriching relationships with alumni, government, business and the world community. Teaching, learning, scholarship, research, innovation, and leadership development for promoting student success are our central enterprises.

Section II. General Education at RIT

Purpose

The general education program is developed, owned, and reviewed by the RIT faculty. The program is designed to provide a rigorous, engaging, and purposeful general education experience. The skills and knowledge derived from the general education program and the major are integrated into an effective undergraduate education. The General Education program enriches the lives of the students as they acquired the knowledge, skills, and competencies to be successful in their chosen fields and for lifelong learning.

General Education Student Learning Outcomes

The general education student learning outcomes (below) were approved in May, 2009 and express the educational philosophy of RIT and incorporate the essential knowledge, skills, and competencies expected of an RIT graduate. By the time of graduation, RIT students will be able to:

Communication
<ul style="list-style-type: none">❖ Express themselves effectively in common college-level written forms using standard American English❖ Revise and improve written and visual content❖ Express themselves effectively in presentations, either in spoken standard American English or sign language (American Sign Language or English-based Signing)

- ❖ Comprehend information accessed through reading and discussion

Intellectual Inquiry

- ❖ Review, assess, and draw conclusions about a hypotheses or theories
- ❖ Analyze arguments, in relation to their premises, assumptions, contexts, and conclusions
- ❖ Construct logical and reasonable arguments that include anticipation of counterarguments
- ❖ Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources of information

Ethical, Social, and Global Awareness

- ❖ Analyze similarities and differences in human experiences and consequent perspectives
- ❖ Examine connections among the world's populations
- ❖ Identify contemporary ethical questions and relevant stakeholder positions

Scientific, Mathematical, and Technological Literacy

- ❖ Explain basic principles and concepts of one of the natural sciences*
- ❖ Apply methods of scientific inquiry and problem solving to contemporary issues
- ❖ Comprehend and evaluate mathematical and statistical information*
- ❖ Perform college-level mathematical operations on quantitative data*
- ❖ Describe the potential and the limitations of technology
- ❖ Use appropriate technology to achieve desired outcomes

*BS Students Only

Creativity, Innovation, and Artistic Literacy

- ❖ Demonstrate creative/innovative approaches to course-based assignments or projects
- ❖ Interpret and evaluate artistic expression considering the cultural context in which it was created

Section III. Assessment of General Education Student Learning Outcomes

Assessment Principles and Guidelines

RIT is committed to comprehensive, systematic, and meaningful assessment practices. Assessment is more than the collection of data (Palomba and Banta, 1999) and, in order for an assessment system to work; it must be purposeful about the information that is collected. After the data is collected, it must be examined and used to make improvements or changes.

Banta (2002) describes three phases of a successful assessment system: *planning*, *implementation*, and *improving and sustaining*. In the *planning* phase, all stakeholders are involved, including faculty members and administrators. The *implementation* phase includes a clear plan and purpose, objectives, as well as a commitment to improvement. The *improving and sustaining* phase includes the ongoing use of assessment to improve programs and services. This stage includes incorporating evaluation and improvement of the assessment process itself. All of these phases are critical to a successful assessment system at RIT.

Phase 1: Planning

RIT is dedicated to a thoughtful and purposeful approach to planning the assessment of the general education student learning outcomes. To this end, an assessment planning matrix was developed collaboratively by faculty from each college to determine which general education student learning outcomes should be assessed at which critical points. The purpose of the matrix was to identify how the learning outcomes interrelated to form a comprehensive program that can demonstrate cumulative learning over time and across courses. The matrix clarified which elements are part of the general education program and demonstrated competency building in the majors. It also served to identify what RIT had in place that served assessment purposes and determined what may need to be added. Additional planning continues through various structures designed to support general education and the assessment of student learning outcomes. See Appendix B for a timeline and work plan.

Phase 2: Implementation: A Sustainable Assessment System

RIT is committed to the implementation of a comprehensive assessment system that uses:

- Multiple forms of data, including direct and indirect measures
- A combination of internal evaluators, including students, faculty, and employers
- Data collected from various courses and experiences throughout the undergraduate programs

In order to sustain the assessment system and complete the related assessment work (e.g. syllabi review, rubric development, faculty development), student learning outcomes assessments will be implemented over a three year period. See Appendix C for the data collection schedule.

RIT is in the process of establishing a new integrated database that supports the efficient collection and analyses of data on student learning outcomes. It is anticipated that it will take another year before the new database is totally integrated and functional. By improving the use of technology, the data collection, analysis, and reporting will become increasingly more efficient and effective.

General Education Faculty Teams

To ensure thoughtful planning and implementation of the General Education Assessment Plan, faculty work teams are being developed based on the five General Education Student Learning Outcomes. The first faculty team focused on Communication and specifically the following two student learning outcomes:

- Express themselves effectively in common college-level written forms using standard English
- Revise and improve written and visual content

The purpose of the Communication team was to review the current assessment work and select the courses and assignments to measure the student learning outcomes. The team will: develop a data collection schedule, recommend faculty development and resources, and strategies for sharing and using results. Some of the deliverables included:

- Review and make recommendations for data collection in Writing Seminar Course – utilize existing information relative to writing assessment
- Make recommendations for data collection
- Review and select assignments
- Review and select or develop rubrics for assignments
- Recommend faculty development
- Recommend strategies for sharing results and discussing needed improvements

Guiding Questions:

The following questions were developed to guide the team:

- What did we learn from the writing assessment project?
- What do we want to improve on?
- What do we already have in place that could serve the assessment of communication-related student learning outcomes?
- What might we need to add?
- How can we embed the data collection into courses or experiences?
- What types of technology will support data collection?
- Can we assess more than one outcome in an assignment?
- Is the evidence provided by the evaluation tools (writing rubrics) linked to the student learning outcomes?
- How can we support faculty? What resources enable faculty to strengthen assessment?
- How can we share the results?

Each General Education Student Learning Outcome has its own faculty team and each team reviews the work to date and then makes recommendations to implement the assessment plan.

RIT is currently exploring a campus-wide committee to support assessment at all levels as well as a general education committee. Several standing committees help facilitate and support the assessment of student learning outcomes in general education including:

Student Learning Outcomes Assessment Committee- the Student Learning Outcomes Assessment Committee (SLOAC) is a standing committee designed to facilitate and support program-level assessment efforts in each college.

General Education Committee – the General Education Committee (GEC) The General Education Committee was established to study the general education curriculum and general education course proposals from a university-wide perspective and maintain appropriate inter-college relationships with regard to general education matters. The committee will: assure that there is on-going monitoring and assessment of the general education curriculum; assure that there is an on-going review of the general education curriculum to determine any need for modification; consult with the ICC regarding procedures needed to initiate, review and approve a curriculum modification proposal; review proposed courses for inclusion in the general education curriculum; assure the maintenance and up-keep of a data base of courses that are included as general education.

Assessment Instruments and Methods

Assessments are designed to demonstrate successful integration of the major and the general education components of the degree program. The use of multiple measures provides a holistic picture of student learning and development. Direct methods are used to examine student learning through work products. Indirect methods are used to identify the perception of learning or characteristics associated with learning. Assessment instruments are being reviewed and developed (e.g. course assignment rubrics, surveys, capstone projects). Faculty with expertise serve as consultants, reviewers, statisticians, and mentors in the assessment process. In addition, assessments are created, implemented, and rated collaboratively by faculty members.

Data Analysis

After the student work is collected and scored, the results are summarized and presented to program faculty. There are key questions that were adapted (*Student Learning Assessment: Options and Resources*, 2007) to guide the analysis and interpretation of the findings.

- ❖ What did students learn as a result of an educational experience?
- ❖ To what degree did students learn?
- ❖ What did students not learn?
- ❖ Is the evidence provided by the evaluation method linked to important learning outcomes?
- ❖ Is the evaluation method appropriately comprehensive?
- ❖ Is the assessment tool valid and reliable?
- ❖ Are important learning outcomes evaluated by multiple means?
- ❖ Do questions elicit information that will be useful for making improvements?

- ❖ Does everyone have the same consistent interpretation?
- ❖ Are the results corroborated by other evidence?
- ❖ Is evidence gathered over time and across experiences?

Phase 3: Improving and Sustaining

The assessment process culminates when assessment results are used to improve future learning (Huba & Freed, 2000). RIT faculty members contribute their knowledge, expertise, and perspectives, thereby enhancing the overall assessment system. As a result, assessment works best when it is viewed as a group effort. RIT's faculty and administrators are involved and engaged in assessment and contribute to a sustained assessment system and the use of data to make improvements. The biggest challenge in assessment is the need to demonstrate that data is used to identify areas of improvement and improve processes, programs, instruction, and student learning. The following processes are being developed to ensure the closing of the loop at RIT.

- Systems for analyzing results
- Strategies for improving the learning experience
- Processes for reporting

Reporting Strategies

Assessment results are interpreted and used in an informed, objective, and fair manner.

The findings are clearly communicated to faculty and appropriate constituent groups on an annual basis. The goal is to communicate to appropriate audiences the results of the assessment in an understandable and timely manner, including proper interpretations, and likely misinterpretations. A process is being established for collecting, analyzing, using, and sharing the results.

Reflection on the Process

The assessment process is annually reviewed to determine which aspects worked and which didn't work and how to improve effectiveness and efficiency. An examination of the goals, instruments, and methodology are part of the annual review. Faculty consider how to make assessment more meaningful and useful as well as discuss changes to teaching practices or the curriculum.

RIT General Education Student Learning Outcomes (SLO) Assessment System



Appendix B

Timeline for General Education Student Learning Outcomes Assessment Plan

Phase	Item	Person(s) Responsible	Date	Status/Next Steps
Planning	Final General Education Student Learning Outcomes	Gen Ed Phase II Committee	April 2009	Completed
	Approve General Education Student Learning Outcomes	ICC Academic Senate	May 2009	Completed
	Complete the Assessment Matrix	Gen Ed Phase II Committee	April 2009	Ongoing
	Collaborative dialogue and review of draft General Education Assessment Plan with colleges and divisions	Gen Ed Phase II Committee, Provost, Senior Associate Provost	April 2009	Completed
	Develop General Education Assessment Plan	Gen Ed Phase II Committee	April 2009	Completed
	Finalize Assessment Plan	Gen Ed Phase II Committee	April 15 2009	Completed
	Approval of Assessment Plan by Institute	ICC and Academic Senate	May 2009	Completed
Implementation	Develop faculty teams to review and make recommendations for data collection, analysis, faculty development, use of results, etc	Director of SLOAC working with faculty	Ongoing	In progress
	Identification and development of useful and feasible assessment instruments and methods	Director of SLOAC working with committees and faculty	Ongoing	In progress
	Develop General Education	Provost and Senior	2009.10	Completed

Phase	Item	Person(s) Responsible	Date	Status/Next Steps
	Committee	Associate Provost, Deans		
	Develop College-level Assessment Committees	Provost and Senior Associate Provost	2010-11	In progress
	Review of course syllabi/outlines to included statements of expected learning outcomes	Director of SLOAC working with committees and faculty	Ongoing	In progress
	Determine targets or benchmarks for determining whether student learning outcomes have been achieved	Director of SLOAC working with committees and faculty	Ongoing	In progress
	Development of assessment management system- data collection, analysis, and reporting	Director of SLOAC working with committees and faculty	2010	In progress
	Implementation of Assessment Plan	Director of SLOAC working with committees and faculty	ongoing	In progress
	Modification to the existing program review processes to incorporate student learning outcome goals and sustainable assessment plans.	Provost and Senior Associate Provost, Deans	2009.10	Completed
Sustaining	Initial annual report on assessment of General Education Student Learning Outcomes	Director of SLOAC working with committees and faculty	Annually	In progress
	Provide faculty development	Director of SLOAC with committees and faculty	Ongoing	In progress

Phase	Item	Person(s) Responsible	Date	Status/Next Steps
	Sustained attention on student learning outcomes at the course and program level so that variability in assessment quality and engagement can be avoided	Provost and Senior Associate Provost, Deans	Ongoing	In progress
	Campus-wide focus on understanding and conceptualizing how various RIT constituent groups and programs contribute to student learning and development with respect to general education	Provost and Senior Associate Provost, Deans	Ongoing	In progress
	Communicate findings and consider appropriate actions	Director of SLOAC working with committees and faculty	Ongoing	
	Demonstrate results have been used to improve teaching and to inform planning and budget decisions	Director of SLOAC working with committees and faculty	Ongoing	
	Review of assessment processes to improve effectiveness and efficiency	Director of SLOAC working with committees and faculty	Ongoing	

Appendix C

Three Year Assessment Schedule

Rochester Institute of Technology				
General Education Student Learning Outcomes Assessment Plan (3 Year)				
General Education Learning Outcome	Student Learning Outcome	2009.2010 Assessment	2010.2011 Assessment	2011.2012 Assessment
Communication	Express themselves effectively in common college-level written forms using standard American English	✓		✓
	Revise and improve written and visual products	✓		✓
	Express themselves effectively in presentations, either in spoken standard American English or sign language (American Sign Language or English-based Signing)		✓	
	Comprehend information accessed through reading and discussion		✓	
Intellectual Inquiry	Review, assess, and draw conclusions about hypotheses or theories		✓	
	Analyze arguments, in relation to their premises, assumptions, contexts, and conclusions		✓	
	Construct logical and reasonable arguments that include anticipation of counterarguments			✓
	Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources of information			✓
Ethical, Social, and Global Awareness	Analyze similarities and differences in human experiences and consequent perspectives		✓	
	Examine connections among the world's populations		✓	
	Identify contemporary ethical questions and relevant stakeholder positions			✓

Rochester Institute of Technology

General Education Student Learning Outcomes Assessment Plan (3 Year)

General Education Learning Outcome	Student Learning Outcome	2009.2010 Assessment	2010.2011 Assessment	2011.2012 Assessment
Scientific, Mathematical, and Technological Literacy	Explain basic principles and concepts of one of the natural sciences	✓		
	Apply methods of scientific inquiry and problem solving to contemporary issues	✓		
	Comprehend and evaluate mathematical and statistical information	✓		
	Perform college-level mathematical operations on quantitative data	✓		
	Describe the potential and the limitations of technology	✓		
	Use appropriate technology to achieve desired outcomes	✓		
Creativity, Innovation, and Artistic Literacy	Demonstrate creative/innovative approaches to course-based assignments or projects		✓	
	Interpret and evaluate artistic expression considering the cultural context in which it was created			✓