

General Education Curriculum Proposal
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General Education Committee

GEC Committee 2010-2011

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Introduction:

“The only education that prepares us for change is a *liberal education*. In periods of change, narrow specialization condemns us to inflexibility – precisely what we do not need. We need the flexible intellectual tools to be problem solvers, to be able to continue learning over time.”
-David Kearns, former CEO of Xerox Corporation, 2002

In accordance with RIT’s mission, the General Education curriculum is the foundation for preparing students for lifelong learning, for success in their chosen fields and for their role in society as well-educated and knowledgeable citizens. General Education is a signature curriculum for the Institute, with an impact on all students and programs.

The revision of RIT’s General Education curriculum is designed to address concerns about how General Education at RIT is currently structured and to offer recommendations for a new framework that aligns with the university’s vision and goals and supports a contemporary liberal education. This framework is designed to be intentional, innovative and intellectually engaging for faculty and students. It supports a culture of improvement, by connecting to learning outcomes and assessment. By intentionally creating experiences that allow students to utilize skills and knowledge from multiple courses and apply them to new problems and questions, the framework also provides opportunities for integrative learning. “The capacity for integrative learning – for connection making – has come to be recognized as an important learning outcome in its own right, not simply a hoped-for consequence of the mix of experiences that constitute undergraduate education.”¹

In arriving at recommendations for a new RIT framework, the committee focused on best practices that complement RIT’s mission and values. We benefited considerably from previous conceptual paradigms and work done by the Clark Committees, the General Education Phase I and Phase II Committees, the College of Liberal Arts Curriculum Committee and the College of Science Curriculum Committee. This body of work informs our recommendations and we are indebted to our colleagues for the groundwork they provided.

RIT’s current general education structure is a distributive model with a core introduction to traditional disciplines. This model has two drawbacks. First, it often fails to engage student interest, as students wonder why knowledge is compartmentalized while their experience of the

¹ Huber, MT, Hutchings, P, and R. Gale. 2005. *Integrative Learning for Liberal Education*. peerReview.

world is not; and secondly, it fails to reflect that human activity is rarely divided along such distributive lines.

“The world is changing dramatically, and designs for learning that have long drawn clear distinctions between liberal education—intended for future leaders—and more targeted job training—envisioned as workforce development—now are obsolete. Today, even highly technical jobs require the high-level intellectual skills, contextual understanding, and ethical judgment that long were identified with liberal education in arts and sciences fields.”²

Recommendations:

Guiding Principles for Liberal Education at RIT:

The American Association for Colleges and Universities (AAC&U), a highly respected organization whose mission is “to make the aims of liberal learning a vigorous and constant influence on institutional purpose and educational practice in higher education,” defines **liberal education** as “an approach to college learning that seeks to empower individuals and prepare them to deal with complexity, diversity, and change. This approach emphasizes broad knowledge of the wider world (e.g., science, culture, and society) as well as in-depth achievement in at least one specific field of study. It helps students develop a sense of social responsibility, strong cross-disciplinary intellectual and practical skills (e.g., communication, analytical and problem-solving skills), and a demonstrated ability to apply knowledge and skills in real-world settings.”²

Defining Features

In accomplishing these broader goals for liberal education within the RIT context, our framework for general education must also:

- Support RIT’s Goals, Values, Vision and Mission
- Be consistent with the Academic Program Profile
- Ensure that students achieve RIT’s General Education Learning Outcomes
- Meet the New York State Education Department (NYSED) requirements for Liberal Arts and Sciences (<http://www.highered.nysed.gov/ocue/lrp/liberalarts>)
- Support the Institute Writing Committee’s Comprehensive Writing Program initiative

Depth and Breadth

The general education program is designed to:

² American Association of Colleges & Universities, *The Quality Imperative: Match Ambitious Goals for College Attainment with an Ambitious Vision for Learning*

- Contribute to the development of a breadth of knowledge by providing course offerings from a broad range of disciplines, including humanities, mathematics and the natural and social sciences
- Allow students to explore a particular area of knowledge in depth through a series of related courses
- Provide opportunities for students to make connections between courses and across disciplines
- Be integrated into all the years of a student's education at RIT
- Provide students choices in how to fulfill their general education requirements
- Provide a progression of courses that are integrated with and support major fields of study and other interests

Implementation

In order to ensure successful implementation of the general education program, it is essential that the framework:

- Be clear and concise to ease processes for scheduling, auditing and advising
- Be clear and easy to understand for students, faculty, and staff
- Allow for easy adaptation for future reform

Other Important Considerations

In order to support sustained university-wide engagement, the general education program should:

- Be intellectually stimulating for faculty and students
- Adapt to changing curricula and a changing world
- Support innovation, creativity, scholarship, and life-long learning

The Framework:

Overview:

The proposed General Education framework intentionally progresses through three educational phases designed to give students a strong **foundation**, a series of **perspective** categories, and finally the opportunity for deeper study and integrative learning experiences through **immersion** in a series of related courses. Additionally, general education elective courses may be specified by programs to support the major field of study.

The **foundation** category includes two courses in the first year that introduce students to the intellectual life of the university, and provide a focus on communication skills to prepare them for future coursework and career preparation. The **perspective** categories are designed to introduce students to a variety of important areas of inquiry that provide ways of knowing about the world. The perspective courses will introduce students to fundamentals of a liberal arts and sciences discipline (methods, concepts, and theories) while addressing specific general education learning outcomes. Finally **immersion** is offered through a series of three related general education courses in a theme or discipline. The immersion supports deeper learning within a focus area, and also provides opportunities for integrative learning through pedagogical approaches such as linked courses, team-teaching, and trans- and interdisciplinary experiences.

RIT general education student learning outcomes are connected to the Foundation and Perspective courses to ensure that RIT provides all students with courses and experiences within the General Education Framework consistent with RIT's general education student learning outcomes, mission and values. The Foundation and Perspective courses and experiences will provide the primary opportunities to assess the general education student learning outcomes. Students will have additional opportunities to further achieve the general education student learning outcomes through general education immersion and electives and in their field of study. The skills and knowledge achieved through the general education curriculum and the programs of study are designed to be integrated into an effective undergraduate education. This outcomes-based approach emphasizes and focuses on the general education student learning outcomes deemed essential by RIT. The achievement of the general education student learning outcomes supports students in their "abilities, commitments, and knowledge required to move productively among subjects, contexts, communities, cultures, and nations."³

³ E. Minnich, *Liberal Learning and the Arts of Connection for the New Academy*

Requirements:

In accordance with RIT Policies & Procedures Section D1.G, “Courses will be evaluated using the criteria set forth by the State of New York Liberal Arts and Sciences Guidelines (<http://www.highered.nysed.gov/ocue/lrp/liberalarts.htm>) and the RIT Student General Education Student Learning Outcomes (<http://www.rit.edu/outcomes/>).”

Each type of degree award requires a different number of general education credits as mandated by the New York State Education Department (NYSED). When providing guidance, NYSED uses the term “liberal arts and sciences” to refer to general education. In accordance with NYSED’s guidelines, students in the following programs must complete, at a minimum, the number of credits indicated in each category, as illustrated in Table 1.

Table 1. The table shows the minimum number of semester credit hours (sch) required in each category. Details can be found in the sections below for each degree program.

<i>General Education Framework</i>	BS	BFA	AAS	AS
Foundation First-Year Seminar First-Year Writing Intensive course	6	6	6	6
Perspectives Categories *	24	12	15	15
Immersion Requirements * <i>Three additional, related courses</i>	9	9	0	0
General Education Electives***	21	3	3	9
MINIMUM TOTAL	60	30	24**	30

**includes 1 writing intensive course in either a Perspective Category or Immersion*

***NYSED requires 20; RIT framework exceeds the minimum requirement*

**** Elective course credits plus other category credits must equal the minimum required.*

A. First-Year Foundation: This group includes a First-Year Seminar course and the first writing intensive course (currently “Writing Seminar”).

The following general education student learning outcomes are supported by the First-Year Seminar:

Students will be able to:

- 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
- Describe the potential and the limitations of technology

The required First-Year Writing course addresses the following general education student learning outcomes, which will be reinforced throughout the student’s college career:

Students will be able to:

- Revise and improve written and visual products
- Express themselves effectively in common college-level written forms using standard American English
- Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources of information

B. Perspectives:

Courses must, at a minimum, meet the general education student learning outcomes identified under the Perspectives category.

1. **Ethical:** Courses in this category focus on ethical aspects of decision-making and argument, whether at the individual, group, national, or international level. Because RIT expects its graduates to be leaders in their careers and communities, these courses provide students with an understanding of how ethical issues can be conceived, discussed, and resolved, and how ethical forms of reasoning emerge and are applied to address such issues.

At a minimum, these courses will enable students to:

- Identify contemporary ethical questions and relevant stakeholder outcomes

2. **Artistic:** Courses in this category focus on the analysis of forms of artistic expression in the context of the societies and cultures that produced and sustained them. These courses provide insight into the creative process, the nature of aesthetic experience, the fundamentals of criticism and aesthetic discrimination, and the ways in which societies and cultures express their values through their art.

At a minimum, these courses will enable students to:

- Interpret and evaluate artistic expression considering the cultural context in which it was created

3. **Global:** Acting wisely as global citizens requires the ability to imagine how one's choices affect other people; courses in this category encourage students to see life from a perspective wider than their own and to understand the diversity of human cultures within an interconnected global society. Courses in this category may explore the interconnectedness of the local and the global in today's world or in historical examples, and encourage students to see how global forces reverberate at the local level.

At a minimum, these courses will enable students to:

- Examine connections among the world's populations

4. **Social:** Courses in this category focus on the analysis of human behavior within the context of social systems and institutions. Because RIT recognizes that student success

depends on the ability to understand how social groups function and operate, these courses provide insight into the workings of social institutions' processes.

At a minimum, these courses will enable students to:

- Analyze similarities and differences in human experiences and consequent perspectives

5. **Natural Science Inquiry:** Science is more than a collection of facts and theories, so students will be expected to understand and participate in the process of science inquiry. Courses in this category focus on the basic principles and concepts of one or more of the natural sciences. In these classes, students apply methods of scientific inquiry and problem solving in a laboratory or field experience.

At a minimum, these courses will enable students to:

- Explain basic principles and concepts of one of the natural sciences
- Apply methods of scientific inquiry and problem solving to contemporary issues

6. **Scientific Principles:** The courses in this category will focus on the foundational principles of one or more of the natural sciences or will provide an opportunity to apply methods of scientific inquiry in the natural or social sciences. Courses in this category may or may not include a laboratory experience.

At a minimum, these courses will enable students to:

- Explain basic principles and concepts of one of the natural sciences
- OR**
- Apply methods of scientific inquiry and problem solving to contemporary issues

7. **Mathematical:** Courses in this category will introduce students to the role that mathematics and computational practices play in the world. In these courses, students comprehend and evaluate mathematical or statistical information or computational practices and perform college-level mathematical operations on quantitative data.

At a minimum, these courses will enable students to:

- Comprehend and evaluate mathematical or statistical information
- Perform college-level mathematical operations on quantitative data

Guidelines for the Perspective Categories:

- Courses within a Perspective Category must address the definitional guidance provided for each category type, plus address and assess all associated learning outcomes.
- Courses in these categories should be at the 100 to 400 levels.
- Courses may be listed in more than one category.
- A student may only use a single course to fulfill a single category.
- Courses in these categories may NOT have a prerequisite in the same Category. (This rule does NOT apply to the SECOND course in the Mathematical Category (#7))

C. Immersion:

An **Immersion** is a set of three (9-12 credits) related general education courses in a focus area linked by a *theme* (e.g. sustainability, globalization) or *discipline* (e.g. computational science, Japanese, mathematics) distinct from the student's home program. It provides opportunities for integrative learning that promote a student's judgment and understanding within a specific area and will not be directed towards specific occupational or professional objectives.

Guidelines for Immersions:

- Immersions are ideally made up of courses at the 200 to 500 levels. Disciplinary Immersions shall, in most cases, contain at least one course at the 300 level or above.
- Immersions are composed of courses that must be offered at least once every two years.
- Immersions are approved by the curriculum committees of all participating academic units and colleges before being submitted to the General Education Committee for review.
- Courses taken as part of an Immersion may also be counted towards a minor.
- Immersions may **NOT** be used to fulfill other General Education or Program requirement.
- Programs may **NOT** require students to complete a specific Immersion or restrict students to a group of Immersions.

D. General Education Electives: The remaining general education elective credits may be specified by the programs in order for students to fulfill supporting requirements (e.g. math or science, foreign language, etc.). Ideally, some of these credits should be free general education electives that can be chosen by the students themselves. Credits in the Perspectives category that exceed the minimum requirement will be applied toward elective credits.

I. General Education Guidelines for Bachelor of Science (BS):

Students earning a BS degree must complete a minimum of 60 General Education credits. In addition to the two Foundation courses, these students must take one course from each of the first six perspective categories and two courses from the Mathematical category for a total of eight courses. A BS program may not require specific courses in more than three Perspective categories. The students must also complete an immersion. The remaining credits can be used as General Education electives.

II. General Education Guidelines for the Bachelor of Fine Arts (BFA):

Students earning a BFA degree must complete a minimum of 30 General Education credits. In addition to the two General Education Foundation courses, these students must take a total of four Perspective courses, one from each of the following four categories: Ethical, Artistic, Global, and Social. A BFA program may not require specific courses in more than two Perspective Categories. The students must also complete an immersion. The remaining three credits can be used as a General Education elective.

III. General Education Guidelines for the Associate of Applied Science (AAS)

Students earning an AAS degree must complete a minimum of 24 General Education credits. In addition to the two Foundation courses, these students must take a total of five Perspective courses, one each from the following five categories: Ethical, Artistic, Global, Social, and Scientific Principles. The remaining course will be a General Education elective.

IV. General Education Guidelines for Associate of Science (AS)

Students earning an AS degree must complete a minimum of 30 General Education credits. In addition to the two Foundation courses, these students must take a total of five Perspective courses, one from each of the following five categories: Ethical, Artistic, Global, Social, and Scientific Principles. The remaining three courses will be General Education electives.

V. General Education Guidelines for Associate of Occupational Studies (AOS)

NYSED does not require that an AOS degree include general education courses. RIT Colleges offering AOS degrees should establish their own guidelines.

VI. Use of program courses in General Education

Programs may count no more than three courses (not including labs) from their home academic unit as General Education. These courses must be approved to carry general education designation by the General Education Committee

Suggested Pedagogical Approaches:

During our committee's deliberations, we discussed a number of approaches that could be utilized to make the General Education curriculum as transparent and engaging for students and faculty as possible. As faculty move forward to design general education courses within Perspective categories, we strongly recommend that creative and innovative approaches to delivery of content are used. These approaches may include team-taught courses, linked courses, and inter- and trans-disciplinary courses.

Additionally, we suggest a structure of common themes that would link courses offered in different Perspective categories. Themes could be suggested and developed by faculty, departments, and/or colleges. Proposals for themes should be submitted to the General Education Committee for approval and posting. Themes are a way of highlighting courses that address a contemporary topic of general importance, such as "The Digital Age," "Sustainability," "Globalization," "Innovation," or "Learning in the City." The timeliness of the issues would work towards the goal of intentionality, as students could more readily perceive the value of their General Education courses. Further, themes would necessarily be multidisciplinary, thereby enhancing the integration of knowledge by students through their pathway at RIT. Finally, themes would support the "scaffolding" of General Education, such that topics that students are exposed to in earlier years would entice them to further follow-up in later years. Hence, the General Education credits become something to be anticipated as a student pursues topics of interest over their years at RIT. This sets the stage for students to become "lifelong learners."