

[Approved by the Academic Senate on May 20, 2010]

Academic Program Profile

Foreword

The work of the faculty as architects of the curriculum is informed by the university's mission to "lead higher education in preparing students for innovative, creative and successful careers in a global society" (RIT Strategic Plan: 2005-2015) and is guided by the Academic Program Profile, which is described below. This Profile articulates important educational outcomes that are mission-driven and characterize what an RIT education represents. RIT believes these outcomes to be so essential that they should be integrated into every RIT program at the undergraduate and, where appropriate, the graduate level. The specific ways in which programs embed these outcomes in each program will vary and be contextualized to particular career goals and professions. In addition, at the undergraduate level, RIT's General Education Outcomes evolve out of and map to these essential outcomes.

The Academic Program Profile is an important component of RIT's Academic Program Management Process and is incorporated into curriculum development and review guidelines.

Introduction

The Academic Program Profile provides guidance and direction for developing and evaluating all academic undergraduate and graduate degree programs at RIT. It helps program faculty, governance groups, and the administration design and assess programs on the basis of how well they fit RIT's vision, mission, and values.

The profile consists of two parts: (1) the Guiding Principles of Lifelong Learning and Career Orientation and (2) a set of five Essential Program Outcomes that are consistent with and reflective of these Guiding Principles. The Guiding Principles and the Essential Program Outcomes are to be embedded in **every** academic program at RIT. Indeed, the measurement of the Essential Program Outcomes will be both qualitative and quantitative, where appropriate, and will be integral to their successful implementation.

It is understood that there may be discipline-specific and cross-disciplinary program outcomes that are not listed in this Profile but that are, nevertheless, important to specific programs and disciplinary and cross-disciplinary frameworks. In such cases, the programs may develop, adopt and explicitly articulate these additional program outcomes to complement the Essential Program Outcomes articulated below, as well as develop appropriate measurement criteria to assess achievement in these areas.

Implementation Expectations

As programs are designed, they will support institute strategic objectives as well as college, discipline-specific, and cross-disciplinary objectives. The basis for the former will be the clear and explicit alignment of program level learning outcomes to the Essential Program Outcomes described below, in appropriately measurable ways. In order to articulate this alignment, each Program Level Outcomes Assessment Plan will map these five essential program outcome categories to the specific program. Programs are encouraged to recognize and identify where these five outcomes are already embedded and measured in the program—or could be embedded and measured—rather than adding new outcomes to the assessment plan. (Sample Assessment Templates and Plans will be available to assist program faculty).

NOTE: When this Academic Profile becomes part of a comprehensive document that guides program development and curriculum revisions, the Profile will be followed by the document entitled “General Education: Student Learning Outcomes and Sustainable Assessment Plan.”

I. Guiding Principles: Lifelong Learning and Career Orientation

At the heart of RIT's culture and identity as a university is its commitment to a pair of curricular goals: facilitation of lifelong learning and a career orientation for all RIT students. From its inception, the university has possessed an ethos of pragmatism and relevance that has shaped the evolution of both the academic programs and the student experience. As a result, cooperative education, scientific and technological sophistication, and professionalism have come to distinguish RIT graduates. In addition to these hallmarks, RIT is committed to the *integration* of professional, technical, aesthetic and humanistic education as essential components of its academic profile.

These practical dimensions of an RIT education have always—since the days of the Rochester Athenaeum—been set in a humanistic context: career education stands alongside the values inherent in the humanities and social sciences. It is in fact this tandem that enables the resiliency and adaptability that are identified as strengths in RIT's graduates: lifelong learning is a condition not only of a successful career but of fostering an educated and engaged citizenry. Although the ideals of lifelong learning and career education could be used to evaluate RIT programs directly, the Academic Program Profile elevates the pair into guiding principles that inform each of the Learning Outcomes listed below.

II. Essential Program Outcomes

Embedded in every academic program at RIT will be a set of five Essential Program Outcomes: critical thinking, global interconnectedness, ethical reasoning, integrative literacies, and innovative/creative thinking. A general description of each Essential Program Outcome is provided below. However, a more specific focus, appropriately applied to career goals and professions, will be defined by individual undergraduate and graduate academic programs. Likewise, the sophistication and complexity of the expected outcomes will be reflective of the degree level obtained. As students progress through college, they will experience escalating expectations, and all students graduating from RIT will demonstrate each of the following Essential Program Outcomes to some degree.

1. **Critical Thinking** refers to those processes required to understand and evaluate complex claims of various sorts. It involves the evaluation of information, evidence, arguments, and theories, and the contexts in which these are encountered. It entails the questioning of 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.
2. **Global Interconnectedness** refers to the ability to understand and function in an increasingly multicultural, international, yet interconnected environment. It fosters the development of individuals to become successful professionals, civic leaders, and informed citizens in a diverse national and global society. Individuals with these competencies would: demonstrate an understanding of the relationships between diverse populations and social, economic, and political power both in the United States and globally; demonstrate knowledge of contributions made by members of diverse and/or underrepresented groups to our various communities; consider perspectives of diverse groups when making decisions; and function as members of society and as professionals with people who have ideas, beliefs, attitudes, and behaviors that are different from their own.
3. **Ethical Reasoning** is the development of students' abilities to understand and critically engage the ethical dimensions of thought, knowledge, and behaviors, and to contribute ethically to the personal, professional and larger social contexts in which they live. Realizing that behavior has consequences for the welfare of others, learners assess reasoning processes and learn the ethical principles that help guide and evaluate actions. Such reasoning engages the underlying normative commitments and consequences of different traditions of ethical thought, of fields of knowledge, of contexts that transcend individual interest, with an

appreciation for the kind of complexity that goes well beyond the binaries such as “right and wrong.”

4. **Integrative Literacies** describe the integration, connection, and linkage through serious inquiry and collaborative learning of six core areas of literacy: science, computation or digital, mathematics, communication, technical, and aesthetic. It is in the intersection and synthesis of these literacies that students develop the core knowledge, flexibility of thought, and responsiveness to contribute to the evolving needs of society and the world. In isolation these literacies are insufficient; rather, they function best and most meaningfully when integrated successfully and perceptively in context.
 - a. **Scientific literacy** refers to describing, explaining, and predicting natural phenomena. Students learn to critically engage articles about science in discipline-based and popular media and enter into conversation about the soundness of their conclusions. Scientific literacy requires familiarity with scientific modes of inquiry and an understanding of their applications when addressing questions of science and technology. It refers to a person’s ability to identify scientific issues underlying national and local decisions and to express positions that are scientifically and technologically informed. A literate citizen should be able to evaluate the quality of scientific information and scientific claims on the basis of the sources and methods used to generate them. Scientific literacy also refers to the capacity to pose and evaluate arguments based on evidence and to apply conclusions from such arguments appropriately.
 - b. **Computational or digital literacy** is the ability to understand the fundamental underpinnings of and appropriate uses of digital devices and media as vehicles of understanding and vehicles for learning, working, communicating, and collaborating. It includes the ability to actively engage and interpret digital media, reproduce data and images through digital manipulation, evaluate and apply new knowledge gained from digital environments, and make educated judgments about the information and environments we find online. Digital literacy requires

- understanding and critical evaluation of the special challenges posed by the complexity of digital sources and environments.
- c. **Mathematical literacy or numeracy** is the ability to reason rigorously and quantitatively with numbers and other mathematical concepts, not only in the field of mathematics but also in other fields. To be numerically literate, a person has to be capable of understanding and applying mathematical systems of representation and reasoning. Numeracy involves developing confidence and competence with numbers, measures, and the theories that support them. It requires an understanding of numbering systems, a repertoire of mathematical techniques, and an ability to solve quantitative or spatial problems in a range of contexts. Numeracy also demands an understanding of the ways in which data are produced, gathered by counting and measuring, and presented in graphs, diagrams, charts, and tables. The integration of mathematical knowledge with problem-solving and communication skills is required to function successfully within our technological world.
 - d. **Communication literacy** is, broadly stated, the mastery of language in expressive (spoken and written) and receptive (listening and reading) forms that enables an individual to understand, interpret, and use language successfully for a variety of purposes. More specifically, it is the ability to transmit a message that conveys meaning to an intended audience. Communication may be verbal or non-verbal in the symbolic and dynamic exchange of information. Knowledge of American Sign Language (ASL) and foreign languages also foster an enhanced capacity to understand and successfully engage in the full richness of human communication, and enable people to function more successfully in the global workplace.
 - e. **Technical literacy** refers to people's knowledge of different technologies, their capability to use the technology appropriately and effectively to accomplish various tasks, and their understanding that technologies are socially shaped as well as socially shaping. A technologically-literate person can think critically about technological issues and decisions about the uses of technology in context. Technological literacy can be further defined by three interrelated attributes of the technologically literate: knowledge of technology, its

- application, and its impact; the ways one thinks and acts regarding technology; and the capability to use different and appropriate technologies.
- f. **Aesthetic literacy** refers to the ability to understand and critically engage creative messages in their informational, aesthetic, cultural and social dimensions. An aesthetically-literate individual can engage and communicate successfully in a variety of creative forms and appreciate different traditions and practices such as visual, oral, auditory, and written communication. Aesthetically-literate individuals have the ability to create, amend, and reproduce images, sound, and/or physical objects.
5. **Creative and Innovative Thinking** are higher-level thought processes that imagine new possibilities. Through the application of imaginative thought and activity, something novel is conceived and/or produced. “Creative thinking is both the capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking” [quoted from Association of American Colleges and Universities (AACU), Creative Thinking VALUE Rubric].

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Motion that was approved:

The Academic Senate approves the revision of “Policies for Curriculum Development D1.0.C.3 to include the following text as bullet b: *A description of how the program meets the Academic Program Profile of the University.* The remaining bullets will be adjusted to reflect the inclusion of this new bullet.