

GENERAL EDUCATION AT NEW YORK CITY COLLEGE OF TECHNOLOGY

Proposed by the College General Education Committee, May 2012; revised 19 October 2012

New York City College of Technology aspires to be a living laboratory where General Education

- is represented by a mutually accepted core of knowledge, skills, and values that permeate all courses, not only in the liberal arts and sciences, but across the majors.
- makes rich use of the physical, historical, economic, and cultural aspects of our location in a diverse urban community
- stresses active learning and creative problem solving
- encourages engagement in personal, professional, and civic communities
- integrates theory/ knowledge and hands- on/ application
- maintains a global focus/ perspective
- is communications intensive

General Education Learning Goals for City Tech Graduates

KNOWLEDGE/ Develop knowledge from a range of disciplinary perspectives, and hone the ability to deepen and continue learning.

Breadth of knowledge

- Value knowledge and learning.
- Understand and appreciate the range of academic disciplines and their relationship to the fields of professional and applied study.
- Use the arts, sciences and humanities as a forum for the study of values, ethical principles, and the physical world.

Depth of knowledge

- Engage in an in-depth, focused, and sustained program of study.
- Pursue disciplined, Inquiry-based learning in the major.

Lifelong learning

- Show curiosity and the desire to learn.
- Acquire tools for lifelong learning—how to learn, how they learn, knowledge of resources.

SKILLS/ Acquire and use the tools needed for communication, inquiry, analysis, and productive work.

Communication

- Communicate in diverse settings and groups, using written (both reading and writing), oral (both speaking and listening), and visual means, and in more than one language.

Inquiry/ Analysis

- Derive meaning from experience, as well as gather information from observation.
- Understand and employ both quantitative and qualitative analysis to describe and solve problems, both independently and cooperatively.
- Employ scientific reasoning and logical thinking.
- Use creativity to solve problems.

INTEGRATION/ Work productively within and across disciplines.

Information literacies

- Gather, Interpret, evaluate, and apply information discerningly from a variety of sources.

Systems

- Understand and navigate systems.

Integrate learning

- Resolve difficult issues creatively by employing multiple systems and tools.
- Make meaningful and multiple connections among the liberal arts and between the liberal arts and the areas of study leading to a major or profession.

VALUES, ETHICS, AND RELATIONSHIPS/ Understand and apply values, ethics, and diverse perspectives in personal, professional, civic, and cultural/global domains.

Professional/Personal development

- Demonstrate Intellectual honesty and personal responsibility.
- Discern consequences of decisions and actions.
- Demonstrate intellectual agility and the ability to manage change.
- Work with teams, including those of diverse composition. Build consensus. Respect and use creativity.

Ethics/values

- Transform information into knowledge, and knowledge into judgment and action.
- Assume responsibility for social justice.

Community/Civic engagement

- Demonstrate social and civic knowledge.
- Understand organizations and histories underlying government in a global context.
- Apply knowledge and analyze social, political, economic, and historical issues.
- Show ability to contribute actively by applying knowledge to the identification and analysis of societal and professional problems to enact solutions.

Global/ Multicultural Orientation

- Demonstrate expanded cultural and global awareness and sensitivity.
- Discern multiple perspectives.
- Demonstrate proficiencies and capacities in dealing with a diverse society.
- Communicate across cultural and linguistic boundaries.

PROPOSED CITY TECH GENERAL EDUCATION COMMON CORE: Supports the distinctive character of education at New York City College of Technology and incorporates the CUNY Pathways Common Core.

AA, AS, and all baccalaureate programs--General Education Core (30 credits) consisting of:

I—Required Core (12 credits)

- ENG 1101 (3 credits)
- ENG 1121 (3 credits)
- Mathematics (3 or 4 credits)¹
- Science (3, 4, or 5 credits)

II—Flexible Core--One 3-credit course from each of the following areas (18 credits)

(No more than two courses may be selected from any discipline)

- World Culture and Global Issues
- US Experience in its Diversity
- Individual and Society
- Creative Expression
- Scientific World²
- one additional course from any of the five groups

AAS programs

Students in AAS programs will take a minimum of 20 credits from approved Common Core courses including at least one English Composition course, mathematics, and science, along with other Common Core courses selected to comply with licensure or accreditation requirements as needed.

BS, BTech—All baccalaureate students starting at City Tech or transferring in with fewer than 30 credits, in addition to I and II above, will also complete the following³:

III--College Option requirement (12 credits):

- One course in speech/ oral communication
- One interdisciplinary⁴ liberal arts and sciences course.
- Additional liberal arts credits to reach a total of 42 credits in general education.
- In meeting their general education requirements overall, students must take at least one advanced liberal arts course⁵ or two sequential courses in a foreign language.

¹ Students in STEM programs will take 4-credit mathematics and 4-5 credit science courses. Students in health programs will take 4-credit science courses, and 3 or 4-credit math courses, as determined by their programs. Any student may elect to take a 4-credit math or science course. The added credits will come from degree, elective, or College Option credits.

² Students whose programs require the second semester of a science sequence or who elect to take it, may do so as their required Scientific World course.

³ Students who have already taken such a course at the associate level may take another liberal arts course instead.

⁴ The Committee proposes to use the definition of “interdisciplinary” developed by the Interdisciplinary Committee as follows: “Interdisciplinary studies involve two or more academic disciplines or fields of study organized around synthesizing distinct perspectives, knowledge, and skills. Interdisciplinary study focuses on questions, problems, and topics too complex or too broad for a single discipline or field to encompass adequately; such studies thrive on drawing connections between seemingly exclusive domains. Usually theme-based, interdisciplinary courses intentionally address issues that require meaningful engagement of multiple academic disciplines. Pedagogical strategies focus on, but are not limited to inquiry or problem-based learning.” To qualify for the College Option at City Tech, such a course must also meet the New York State definition of a liberal arts and sciences course.

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Particularly in bachelor of science programs, students may take many more credits in arts and science as degree requirements or electives. Degree programs are encouraged to permit as much student choice as possible in selecting General Education Core courses.

Additional cross-cutting factors

- To support the development of strong communication skills, City Tech will maintain its Writing Intensive requirement.
- All college courses will have identified general education learning outcomes.
- In lieu of the current Computer Literacy policy, which imposes a graduation requirement, program outcomes will include appropriate computer-related competencies. To provide guidance to students, all college course outlines/ syllabi will note computer-related competencies expected of students enrolling in the course, as well as any such competencies that are intended learning outcomes of the course.
- Learning Communities, team-teaching, and other cross-departmental collaborations will be encouraged, to support integrative and interdisciplinary learning.

⁵ An “advanced” course is at the 2000 level or higher and has a prerequisite in the same or a closely-related discipline. Examples of courses with pre-requisites in closely related disciplines are: ECON 1101 + SOC 3301; PSY 1101 + SOC 2403

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RATIONALE

The General Education Committee of New York City College of Technology proposes a philosophy for the college's offerings in General Education that makes general education serve as the nucleus of each degree program. This philosophy attempts to balance breadth and depth of knowledge with the acquisition of useful skills. The goal is to produce graduates who are active learners, creative problem solvers, and engaged practitioners in their respective domains.

City Tech's educational approach differs from other senior colleges at CUNY in that it integrates theory with applied hands on experiences. Further, as so many of the degree programs are AAS or BTech degrees, the number of liberal arts credits within these curricula is smaller than for degrees in liberal arts or sciences. It is important, therefore, to ensure that critical learning experiences not explicitly covered in the 30 credit common core are integrated into our proposed twelve-credit option and continued and deepened in courses for the major.

All courses in the CUNY Common Core, both for the 12 credit Required Core and the 18 credit Flexible Core, must satisfy certain learning outcomes. These align with or augment City Tech's proposed Gen Ed as follows:

CUNY Pathways Common Core	City Tech General Education
<ul style="list-style-type: none">▪ Gather, interpret, and assess information from a variety of sources and points of view.	<ul style="list-style-type: none">▪ Derive meaning from experience, as well as gather information from observation.
<ul style="list-style-type: none">▪ Evaluate evidence and arguments critically or analytically	<ul style="list-style-type: none">▪ Understand and employ both quantitative and qualitative analysis to describe and solve problems.
<ul style="list-style-type: none">▪ Produce well-reasoned written or oral arguments using evidence to support conclusions	<ul style="list-style-type: none">▪ Communicate in diverse settings and groups, using written, oral, and visual means.

In addition to the base learning outcomes, each category in the CUNY Flexible Core has a set of more specialized outcomes. To fit within a category a course must fulfill at least three of the learning outcomes for that area. This is where the CUNY Pathways design diverges most significantly from City Tech's design. Although both propose breadth of knowledge as critical, City Tech does not specify subject domains in the same way that Pathways does, nor does it consider content on a course-by-course basis.

For example, for the CUNY area World Culture and Global Issues courses must apply the skill sets of assessment, analysis, and communication to the domain of *World Cultures and Global Issues*, with possible outcomes based on identification of concepts, analysis of information, or language fluency. However, they all relate to the domain of global studies.

City Tech's design does not require a course focusing on Global Studies (although many courses that satisfy this requirement). Instead, the college goals within *Breadth of Knowledge* include "Understand and appreciate the range of academic disciplines and their relationship to fields of professional and applied study," and "Use the arts, sciences and humanities as a forum for the study of values, ethical principles, and the physical world."

Because of the different alignment of course categorization between Pathways and City Tech's design, departments offering liberal arts courses must carefully evaluate how their courses fall into the appropriate Pathways categories. Equally importantly, each category must include sufficient variety of courses both in quantity and in discipline to allow students multiple options for fulfilling degree requirements.

Recommendations regarding the Level III requirements for Baccalaureate Students

- Upon analysis of the Pathways Common Core requirements vis a vis the Important General Education Learning Goals for City Tech Graduates, it is apparent that there is no path that will ensure that students take a course that concentrates on oral communication, an important element in the City Tech General Education Learning Goals. The committee proposes that this requirement be included within the expanded twelve-credit option.
- Also, in line with the City Tech Learning Goals statement that students develop depth as well as breadth of knowledge, the committee proposes that a certain number of courses within the twelve-credit option are classified as "advanced" (requiring at least one prerequisite course other than Freshman Composition).
- To support the goals of integrative/ interdisciplinary learning, the committee proposes to require a course that integrates concepts or skills related to the student's major area of study with those from one or more liberal arts areas. Such a course would meet requirements developed by the Interdisciplinary Committee, consisting of faculty from across the three schools.
- As New York City College of Technology values a diverse range of liberal arts courses, and like the CUNY Common Core embraces a breadth over depth strategy, the committee is recommending that the College's Level III twelve credit option continue this flexibility of course choice, subject to the criteria listed above. The committee further recognizes that each department is unique, and so each should be able to make recommendations and/or requirements as appropriate to their discipline and accreditation requirements.

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Curriculum Committee Meeting 12-03-12

Response to questions raised by members of the Executive Committee of College Council

In response to questions raised by members of the Executive Committee of the College Council in returning the proposal to the Curriculum Committee, the following material is provided:

1. Relationship between the Middle States recommendations and the current proposal
2. Clarification of Interdisciplinary course requirement
3. Final proposal with "Draft" removed

The current proposal submitted by the General Education Committee to the College Council is in direct response to the mandate given to the College by Middle States:

Recommendation:

1. It is imperative that City Tech implement the Self-Study recommendations that "the departments, schools, and College as a whole [engage] in a review of the knowledge, skills, and dispositions required for the general education of students, revise requirements, and develop formative assessment tools."⁶

The discussion further states that "The distribution requirements nominally respond to New York State curriculum requirements for 'broad' offerings complementing the specialization of degree programs. The current analysis documents that these requirements do not provide evidence satisfying the full intention of the standards for general education. " This recommendation was considered so important that Middle States required the College to submit a Monitoring Report in 2010, documenting the College's progress on developing an adequate general education plan and formative assessment tools.

The Monitoring Report is an extremely serious requirement, one step above a Warning. City Tech submitted its report, describing in detail the work of the General Education and Assessment Committees. The Report was accepted. When we submit our regular Periodic Review Report in June 20-13, we must address our further progress in meeting the expectation. A delay in approving the proposal would present a serious problem for the College.

It is important to underscore that the main driver of the current proposal is the development of a new general education program as mandated by Middle States and not CUNY's Pathways initiative, which was announced after the Committee had completed work on the Goals for Learning and was about to consider the relationship between those goals and the existing requirements. Pathways determines the framework for the requirements, but the content of the College's proposal comes from the work of the Committee.

2. **Interdisciplinary Course.** The requirement that students enrolled in AA, AS, and bachelor's programs take one Interdisciplinary course as part of the 12-credit College Option reflects the Learning Goals put forward by the General Education Committee and is an important component of the proposal. It reinforces the overall goal that general education at the College should engage students actively to "make meaningful and multiple connections among the liberal arts and between the liberal arts and the areas of study leading to a major or profession." The proposal further underscores the

⁶ Pages 16-17 of the report, offering a discussion of the College's performance regarding Standard 12 are attached.

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importance of interdisciplinary learning in the “cross-cutting factors: “Learning Communities, team-teaching, and other cross-departmental collaborations will be encouraged, to support integrative and interdisciplinary learning. “

Although the Gen Ed Committee proposes to use the definition and of “interdisciplinary” developed by the Interdisciplinary committee, it has not proposed that the current Interdisciplinary Committee be empowered to decide whether an existing or proposed course is “interdisciplinary,” nor has any new body been proposed to undertake that function. Until and unless a full proposal by the Interdisciplinary Committee is approved by Council action, that function might most efficiently be performed by the Curriculum Committee.