

New York City College of Technology, CUNY

CURRICULUM MODIFICATION PROPOSAL

→ Please refer to the [Curriculum Modification Guide](#) before submitting a proposal.

Title of Proposal	Date
Interdisciplinary Committee and Course Approvals	September 15, 2013
Department Chairperson / Coordinator	Department/Program

Brief Description

On March 5, 2013, the College Option was approved, including one interdisciplinary liberal arts and sciences course. It is therefore necessary to promote an interdisciplinary campus culture and to formalize the process for interdisciplinary course designation, ensuring appropriate curriculum development and governance. Additionally, the further intent of the proposed procedure is to minimize the complexity of the course approval process, particularly to avoid multiple submissions to the same committee. Thus, charged with helping faculty design and implement interdisciplinary pedagogy, the College’s Interdisciplinary Committee, under the auspices of the Curriculum Committee in consultation with the Provost and the Associate Provost, is a recommending body to the College Council’s Curriculum Committee. To streamline such submissions, the Interdisciplinary Committee has attached relevant documents: “Criteria for an Interdisciplinary Course,” which includes the definition of interdisciplinary studies; “Application for Interdisciplinary Course Designation”; “Submitting an Interdisciplinary Course Proposal”; and “Suggestions for Reimagining a Course as Interdisciplinary.” Also attached is a list of the Interdisciplinary Committee subcommittees along with their duties, as well as the Chancellor’s report form.

Indicate the specific change or changes desired.

MAJOR:

- new course(s)
- experimental courses
- Continuing Education courses for credit
- addition or elimination of programs or certificates
- changes in entrance requirements for matriculation or admission to a specific degree program
- a change which would affect the educational objective of a department and/or of the college

MINOR:

- change in course number and/or title
- change in course description
- change in sequence of courses
- change in prerequisites or corequisites for individual course
- substitution of one course for another of similar hours and credits
- substitution of required course(s) for the degree
- course(s) withdrawn or reinstated

Supporting Documents Checklist:

MAJOR:

- Complete description of MAJOR modifications and rationale
- All course proposals (see [Course Proposal Document Checklist](#))
- Catalog course description specifying hours and credits for lecture and labs, prerequisites and/or corequisites
- Relevant minutes from department meetings
- Completed [Curriculum Modification Questions](#)
- Documentation of needs assessment
- Documentation of student views
- Documentation of Advisory Commission views (if applicable).
- Evidence of consultation with all affected departments
- Projected headcounts (fall/spring and day/evening) for each new or modified course.
- Memo or email from the academic dean to the Curriculum Committee chairperson with a recommendation for or against adopting the proposed change(s) and reasons for the recommendation.
- Completed [Library Resources and Information Literacy Form](#)
- A memorandum from the VP for Finance and Administration with written comments regarding additional and/or new facilities, renovations or construction (if applicable).
- Comparative charts, specifying differences in class hours, lab hours and credits, including course titles and codes.
- Documentation indicating core curriculum requirements have been met for New Programs/Options or Program Changes. (if applicable)
- Plan and process for evaluation of Curricular Experiments (if applicable)
- Established time limit for Curricular Experiments (if applicable)

MINOR:

- Description of MINOR modifications and rationale
- Department minutes with record of the approval
- Memo or email from the Dean approving the change
- Evidence of consultation with all affected departments
- Completed [Curriculum Modification Questions](#)

Submitted by

Interdisciplinary Committee

Reneta D. Lansiquot (ENG) – Founding Chair
rlansiquot@citytech.cuny.edu

David B. Smith (ENT) – Secretary
Monica Berger (LIB) – Webmaster
Reginald A. Blake (PHYS)
Gwen Cohen Brown (DEN)
Candido Cabo (CST)
Urmi Ghosh-Dastidar (MAT)
Aida Egues (NUR)
Laina Karthikeyan (BIO)
Ezra Halleck (MAT)
John McCullough (ENT)
Paul C. King (ARCH)
Jean E. Kubeck (PSY)
Robert Leston (ENG)
Janet Liou-Mark (MAT)
Sean P. MacDonald (ECON)
Laureen Park (PHIL)
Kara Pasner (VCT)
Johannah Rodgers (ENG)
Olufemi Sodeinde (BIO)
Selwyn A. Williams (BIO)
Andleeb Zameer (BIO)

Email this form along with all supporting documents to the Chair of the College Council Curriculum Committee.
→ Dr. Viviana Vladutescu:
vvladutescu@citytech.cuny.edu

**New York City College of Technology
Interdisciplinary Committee**

Criteria for an Interdisciplinary Course

I. Interdisciplinary Studies Definition

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.

Although many academic disciplines, such as African American Studies and Engineering, are inherently interdisciplinary, to be considered an interdisciplinary course at City Tech the course must be team-taught¹ by more than one faculty member from two or more departments² in the College. An interdisciplinary course, by definition, has an interdisciplinary theme as its nucleus. In its essence, such a course brings the analytic methods of two or more academic disciplines to bear on a specific problem or question. Thus, a course in Music History is not likely to be considered interdisciplinary, but a course in Music History from an economist's perspective might very well lead to such a course. The application of different methods and concepts is the key to assessing whether a course is or is not interdisciplinary. The term interdisciplinary is occasionally used to identify individual projects or assignments, but these, though possibly commendable, fall short in the necessary scope for learning experiences that demand in-depth exposure to the methodologies of distinct intellectual disciplines, and the creative application of these methodologies to specific problems.

Studies show that interdisciplinary courses improve student learning (Elrod & Roth, 2012; Klein, 2010; Lattuca, 2001; Lattuca, Voigt, & Fath, 2004; Project Kaleidoscope, 2011). To foster interdisciplinary learning, the Interdisciplinary Committee has identified goals and outcomes that students taking interdisciplinary courses should be able to achieve.

Learning Outcomes of Interdisciplinary Courses

Students will be able to:

- Purposefully connect and integrate across-discipline knowledge and skills to solve problems
- Synthesize and transfer knowledge across disciplinary boundaries
- Comprehend factors inherent in complex problems
- Apply integrative thinking to problem-solving in ethically and socially responsible ways
- Recognize varied perspectives
- Gain comfort with complexity and uncertainty
- Think critically, communicate effectively, and work collaboratively
- Become flexible thinkers

¹ See "Application for Interdisciplinary Course Designation" question 9b for team-teaching options.

² Exceptions are made for Departments that provide a home for multiple disciplines, such as Humanities and Social Science.

**New York City College of Technology
Interdisciplinary Committee**

Application for Interdisciplinary Course Designation

Date _____

Submitted by _____

Department(s) _____

II. Proposal to Offer an Interdisciplinary Course

1. Identify the course type and title:

An existing course _____

A new course _____

A course under development _____

2. Provide a course description _____

3. How many credits will the course comprise? _____ How many hours? _____

4. What prerequisite(s) would students need to complete before registering for the course? Co-requisite(s)?

5. Explain briefly why this is an interdisciplinary course. _____

6. What is the proposed theme of the course? What complex central problem or question will it address? What disciplinary methods will be evoked and applied?

7. Which general learning outcomes of an interdisciplinary course does this course address? Please explain how the course will fulfill the bolded mandatory learning outcome below. In addition, select and explain at least three additional outcomes.

Purposefully connect and integrate across-discipline knowledge and skills to solve problems

Synthesize and transfer knowledge across disciplinary boundaries

Comprehend factors inherent in complex problems

Apply integrative thinking to problem solving in ethically and socially responsible ways

Recognize varied perspectives

Gain comfort with complexity and uncertainty

Think critically, communicate effectively, and work collaboratively

Become flexible thinkers

Other

General Education Learning Goals for City Tech Students

- **Knowledge:** Develop knowledge from a range of disciplinary perspectives, and hone the ability to deepen and continue learning.
- **Skills:** Acquire and use the tools needed for communication, inquiry, creativity, analysis, and productive work.
- **Integration:** Work productively within and across disciplines.
- **Values, Ethics, and Relationships:** Understand and apply values, ethics, and diverse perspectives in personal, professional, civic, and cultural/global domains.

8. How does this course address the general education learning goals for City Tech students?

9. Which department would house this course³? _____
Would all sections of the course be interdisciplinary? No Yes

a) Would the course be cross-listed in two or more departments? No Yes
Explain.

b) How will the course be team-taught⁴? Co-taught Guest lecturers Learning community

If co-taught, what is the proposed workload hour distribution? _____

Shared credits Trading credits

If guest lecturers, for what approximate percentage of the course? Minimum 20%⁵ other: __%

Please attach the evaluation framework used to assess the interdisciplinarity of the course.⁶

c) What strategies/resources would be implemented to facilitate students' ability to make connections across the respective academic disciplines?

10. Would the course be designated as:
 a College Option requirement⁷? an elective? a Capstone course⁸? other? Explain.

³ An interdisciplinary course for the College Option requirement may be housed in a department that is not liberal arts.

⁴ Attach evidence of consultation with all affected departments.

⁵ While an interdisciplinary course must be team-taught, there is no formal percentage requirement, but this minimum is a guideline.

⁶ In the case that a course is equally taught, include proposed plans for faculty classroom observation and student evaluation of teaching.

⁷ To qualify for the College Option, such a course must also meet the New York State definition of a liberal arts and sciences course.
<http://www.highered.nysed.gov/ocue/lrp/liberalarts.htm>

⁸ A course proposed as a Capstone course must be separately approved by the Capstone Experience Committee.

**New York City College of Technology
Interdisciplinary Committee**

Submitting an Interdisciplinary Course Proposal

New Course

1. In the College's Curriculum Committee submission form, as part of the questionnaire, add the following:

This course is intended to be considered as an interdisciplinary course. Yes No

Note: Applicants are strongly recommended to submit their draft proposal to the Interdisciplinary Committee for evaluation *before* submission.

2. As part of the submission, the "Application for Interdisciplinary Course Designation" must be filled out.
3. New courses are reviewed by a subcommittee of the Curriculum Committee. A member of the Interdisciplinary Committee (IDC) may be requested to serve as a liaison, and the IDC receives the application, analyzes the course, and generates an evaluation.
 - If the course does not meet the required standards, the reasons why are included in the "weakness" section of the subcommittee report, and, if appropriate, the IDC liaison provides recommendations so that the course proposer can then modify the submission.
 - If the course does meet the standards, the reasons why are included in the "strengths" section of the subcommittee report.

The IDC does not evaluate the suitability of the course in any way except the course's satisfaction of interdisciplinary guidelines.

Existing Course

If an existing course is submitted, the "Application for Interdisciplinary Course Designation" must be filled out. The Curriculum Committee will obtain a recommendation from the IDC regarding its satisfaction of interdisciplinary guidelines. Proposers should provide the course syllabi and evidence of consultation with all affected departments. If the course requires modification, it may also need to be sent through the College's Curriculum Committee as a minor curriculum modification.

Learning Community or Special Sections

Certain instantiations of an existing course or group of courses may be considered as interdisciplinary, even if other sections of the same course or group of courses would not apply. If this is the case, then that section must be submitted to the IDC. This would be similar to special sections of courses that are classified as Honors.

Note: Only specified course sections will be designated as interdisciplinary.

College Council's Curriculum Committee ultimately decides on the interdisciplinary designation of a course.

Assessing and maintaining the interdisciplinary course and its learning outcomes after approval, as proposed, will be the responsibility of each department. The IDC will perform an annual review of designated courses by connecting with the appropriate department representatives.

**New York City College of Technology
Interdisciplinary Committee**

Suggestions for Reimagining a Course as Interdisciplinary

Following is a list of some types of ways that a course could be organized in order to fulfill interdisciplinary requirements.

- Shared credits: two faculty split the credits of the same course. Faculty will not receive double workload hours for the same course. For example, a course with three contact hours equates to a total of three workload hours that are appropriately split among teaching faculty (there may be more than two faculty). Although a one-credit lab will not meet the criteria, it could be part of a 4-credit science interdisciplinary course.

If a 3-credit course deems 6 workload hours for two faculty, then this course should be reconfigured so the 3 workload hours can be amicably split.

- Trading credits: two faculty agree to teach two separate sections of courses, both interdisciplinary, but not necessarily the same course. They trade lessons between the two courses, so that workload is equalized, but both courses gain the interdisciplinary designation.
- Guest lecturers: the course provides multiple perspectives via experts who deliver the interdisciplinary content. This may include, but should not be limited to, site visits.
- Learning community: two courses are assigned as a learning community, and two faculty provide the divergent viewpoints. One course becomes officially labeled with the interdisciplinary designation and the other course is assigned credit to some other area in the student plan of study.
- Independent study: a learning experience that allows for self-directed study relating to an area of academic or professional experience. Key elements of the course include critical analysis, application or development of ideas and concepts related to the area of inquiry and guidance by two or more faculty mentors.⁹

Faculty teaching interdisciplinary courses are encouraged to, and should strongly consider, using free/open-access course materials whenever possible to avoid requiring students to buy double books.

As an interdisciplinary course will probably be new to students, background information should be included in course syllabi including a clear explanation of the scheduling of participating faculty and needed contact hours.

To facilitate scheduling, an interdisciplinary course designed to be offered fully or partially online should be considered, as appropriate, and is encouraged.

⁹ Refer to page 37 of the New York City College of Technology Catalog 2013-2014 for additional guidelines.

**New York City College of Technology
Interdisciplinary Committee**

A quorum is needed for the committee to vote on an action item, and a majority agreement of those present is needed to pass recommendations to College Council's Curriculum Committee.

Subcommittees:

- **Review New (and recently approved) Courses**
 - Meet with faculty members proposing interdisciplinary courses.
 - Serve as a liaison on the College Council's Curriculum Committee subcommittee assigned to review a new course and note strengths and weakness related to the satisfaction of interdisciplinary guidelines for their final report.
 - Generate an online matrix of course offerings to help ensure that there is ample opportunity for all students to take a course in a timely manner.
 - Verify that interdisciplinary courses are appropriately indicated in the schedule of classes to help registering students and also assure that they are recorded on the student's transcript.
- **Review of Existing Courses**
 - Provide recommendations sought by the College Council's Curriculum Committee related to the satisfaction of interdisciplinary guidelines for interdisciplinary course designation.
 - Email chairs of all departments that offer majors to determine, if any, existing courses they believe qualify for the College Option. We will submit these together in bulk to College Council Curriculum Committee as a minor curriculum change. After this initial submission, continue to consult with faculty interested to gaining interdisciplinary designation for their course.
 - Conduct an annual review of existing courses, including learning communities and special sections, by liaison with Coordinated Undergraduate Education (CUE), department chairs and course coordinators.
 - Write annual report on the status of interdisciplinary courses.
- **Course Development Funding**
 - Disseminate grant opportunities to promote the development of interdisciplinary courses. Note funding agencies, resources, and opportunities for development. Create and maintain funding application that notes existing sponsored programs. Match current sponsored programs and faculty who express interest in the same.
 - Liaison with the Social Outreach subcommittee to help support interdisciplinary efforts at the college.
- **Social Outreach**
 - Liaison with Webmaster to help maintain online resources for faculty and students, including guidelines for interdisciplinary course syllabi, sample interdisciplinary course syllabi, list of current interdisciplinary courses, list of current sections and times for the academic year, and a "suggestion box" for submitting possible ideas for future courses.
 - Plan an interdisciplinary mixer every semester.
 - Organize a workshop series on creating, implementing, and assessing interdisciplinary courses every academic year.

Note: If a student wishes to gain transfer credit for an interdisciplinary course, an appropriate member of Interdisciplinary Committee will review the materials and make a recommendation.

Section AII: Changes in Generic Degree Requirements

AII.1 College-wide Requirements

All baccalaureate students starting at New York City College of Technology (City Tech) or transferring in with fewer than 30 credits are required to complete one interdisciplinary liberal arts and sciences course.

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. To be considered an interdisciplinary course at City Tech, the course must be team-taught by more than one faculty member from two or more departments* in the College. An interdisciplinary course, by definition, has an interdisciplinary theme as its nucleus.

Thus, charged with helping faculty design and implement interdisciplinary pedagogy, the College's Interdisciplinary Committee, under the auspices of the Curriculum Committee in consultation with the Provost and the Associate Provost, is a recommending body to the College Council's Curriculum Committee, evaluating proposed courses for interdisciplinary designation. To streamline such submissions, the Interdisciplinary Committee has developed the following documents: "Criteria for an Interdisciplinary Course," which includes the aforementioned definition of interdisciplinary studies; "Application for Interdisciplinary Course Designation"; "Submitting an Interdisciplinary Course Proposal"; and "Suggestions for Reimagining a Course as Interdisciplinary." Also created is a list of the Interdisciplinary Committee subcommittees along with their duties.

Rationale: As City Tech's College Option includes one interdisciplinary liberal arts and sciences course, it is therefore necessary to promote an interdisciplinary campus culture and to formalize the process for interdisciplinary course designation, ensuring appropriate curriculum development and governance, while minimizing the complexity of the course approval process.

* Exceptions are made for Departments that provide a home for multiple disciplines, such as Humanities and Social Science.