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-taught[1] by more than one faculty member from two or more departments[2] 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

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[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.

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Application for Interdisciplinary Course Designation

Date _2/25/2023_____

Submitted by _Anne Leonhardt, Candido Cabo, Genevieve Hitchings, Jenna Spevak_____

Department(s) _ARCH with CST and COMD_____

II. Proposal to Offer an Interdisciplinary Course

- Identify the course type and title:

  ☐ An existing course_____

  ■ A new course _Interdisciplinary Information Design (ID$^{2)}$_____

  ☐ A course under development _____

- Provide a course description _ Every day, we are overloaded with a seemingly endless flow of information — social media feeds, news, advertising, emails, text messages. How do we know which information to pay attention to? Information design helps us navigate and understand our data-rich world. This interdisciplinary course explores how the information design process transforms data into meaning. Through hands-on, collaborative projects that highlight approaches from Computer Science, Communication Design, and Architecture, students will investigate the history and theory behind effective information design while employing user-centered practices.

- How many credits will the course comprise? __3____ How many hours? _2 lecture/2 lab____

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

  ENG 1101
  _____

- Explain briefly why this is an interdisciplinary course. _ This course explores in a focused way information design from the perspectives of computer scientists, graphic designers and architects. Professors from these different fields designed the course. One of the key objectives of the course is

to allow students from these disciplines to understand better the approaches and work of the other disciplines involved, to better prepare them for working in interdisciplinary teams in the real world—something which will serve our graduates well. Additionally, one lecture of the course will be done by someone from social sciences and discuss social or cultural theory and the approaches to information design.

- 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?

    The course will examine the nature of information across the three disciplines involved in designing the course (computer science, graphic design, and architecture) and the different approaches to working with information that exists for computer scientists versus graphic and architectural designers. The key approach is to understand information design of today through the lens of theory and history. These analyses will feed into a research project during the last part of the semester that revolves around user-centered experiences of information design.

- 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**
  Students will work in interdisciplinary teams to come up with information design proposals for the departments' orientation material, that begin from initial data collection and finish with a design graphic.

  ▣ **Synthesize and transfer knowledge across disciplinary boundaries**
  By learning through history and theory about different disciplinary-specific information designs, the students will learn from these various fields.

  ☐ Comprehend factors inherent in complex problems

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

The research project asks students to solve information design problems in a way that improves the experiences of incoming students.

■ Recognize varied perspectives
The course design revolves around presentations and discussions from three to four disciplines of their perspectives on and approaches to information design.

☐ Gain comfort with complexity and uncertainty

■ Think critically, communicate effectively, and work collaboratively
The final research project demands each of these three aspects. The journal entry, presentations, and discussions will also develop critical thinking and effective communication.

☐ 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.

▪ How does this course address the general education learning goals for City Tech students?
This course incorporates each of these four General Education learning goals, as can be seen in the weekly schedule and student work descriptions

- Which department would house this course[3]? _Architectural Technology_
  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-taught[4]? X Co-taught   Guest lecturers ☐ Learning community If

     co-taught, what is the proposed workload hour distribution? 3-way_____
     ☐ X Shared credits ☐ Trading credits
     If guest lecturers, for what approximate percentage of the course? ☐ Minimum 20%[5] ■ other:

     Please <u>attach the evaluation framework</u> 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?
  d)
        Group assignments with project-based learning

        _____

        _____

- Would the course be designated as:
  ■ a College Option requirement[7]? ☐ an elective? ☐ a Capstone course[8]? ☐ other? Explain.

     The course would have the Scientific World designation for the College Option.

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[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.