New York City College of Technology
Interdisciplinary Committee

Application for Interdisciplinary Course Designation

Date March 23, 2014

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Department(s) Computer Systems Technology and English

1. Identify the course type and title:

   ☐ An existing course_____

   ☑ A new course CST 1102 Programming Narratives: Computer Animated Storytelling

   ☐ A course under development _____

2. Provide a course description In this interdisciplinary course, through the study of the structure of narrative, concepts of problem solving, and the logic of computer programming languages, students develop a narrative-driven video game prototype. Emphasis is placed on creative writing and computational thinking.

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

4. What prerequisite(s) would students need to complete before registering for the course? Co-requisite(s)? ENG 1101 English Composition I and CUNY proficiency in Mathematics.

5. Explain briefly why this is an interdisciplinary course. Our proposed course for non-majors is interdisciplinary because it combines the perspectives and methodologies of two academic disciplines in pursuit of a common goal. The common goal is to create a narrative-driven videogame prototype that students can identify with that is immersive, engaging and rewarding. To complete this videogame prototype, students need the perspectives and methodologies in two distinct academic disciplines, English and computing. Students will rely on the perspectives and methodologies learned in the English component of the course to develop a story. Students will implement the story as a computer program with the perspectives and methodologies learned in the computing component. The distinct perspectives and methodologies in English and computing are presented by two faculty members who are experts in their fields and will be co-teaching the course. Students will merge and leverage the different perspectives and methodologies needed to pursue the common goal.

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?

The common goal is to create a narrative-driven videogame prototype that students can identify with that is immersive, engaging and rewarding. To complete this videogame prototype, students need the perspectives and methodologies in two distinct academic disciplines, English and computing. As students study the structure of narratives and learn problem-solving strategies for writing, they are introduced to concepts of problem solving using constructs of logic inherent in computer programming languages. Gained knowledge will facilitate creative writing and the application of solutions to computer programming problems.

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**
Throughout the semester, students will draw on readings of short narratives of various kinds. Students will connect effective narrative elements to write and program engaging stories.

☑ **Synthesize and transfer knowledge across disciplinary boundaries**
Students will prepare an annotated bibliography and game design document, which requires knowledge transfer across disciplinary boundaries as they endeavor to create an engaging, narrative-driven video game prototype.

☑ Comprehend factors inherent in complex problems
Implementing a narrative written in English into a machine executable computer program is a complex task. Students will be challenged to map the structure of their narrative, including character and setting development into constructs of logic inherent to computer programming languages. These challenges will likely result in more insight into both their creative writing processes as well as their computer programming writing processes.

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

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☑ Recognize varied perspectives
The reading of various kinds of short narratives will be very valuable in helping the students make the kinds of connections necessary to recognize synergies between writing stories and writing programs. Students will read, annotate, and discuss short narratives of various kinds (e.g., myth, fantasy, science fiction, horror, historical fiction, plays, short stories, and quests) and apply appropriate narrative structure to the construction of their video game prototype.

☐ Gain comfort with complexity and uncertainty

_____

☑ Think critically, communicate effectively, and work collaboratively

Although this course is housed in the Computer Systems Technology department, it engages narrative-driven computer programming. Throughout the semester, students are challenged to understand, to think critically to solve problems (both writing and computing), to analyze narrative structure, to compare and contrast stories, and to apply various narrative structures to their project. Students work collaboratively on this group project to create a video game prototype and an accompanying game design document.

☐ Become flexible thinkers

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☐ Other

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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?
   See attached course outline.

9. Which department would house this course[1]? Computer Systems 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.
      Eventually, this course will be cross-listed in the English Department.

   b) How will the course be team-taught[2]? ☑ Co-taught ☐ Guest lecturers ☐ Learning community

      If co-taught, what is the proposed workload hour distribution? 1.5 workload hours each
      ☐ Shared credits ☐ Trading credits
      If guest lecturers, for what approximate percentage of the course? ☐ Minimum 20%[3] ☐ other: __%

      Please attach the evaluation framework used to assess the interdisciplinarity of the course.[4]

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[1] An interdisciplinary course for the College Option requirement may be housed in a department that is not liberal arts.
[2] Attach evidence of consultation with all affected departments.
[3] While an interdisciplinary course must be team-taught, there is no formal percentage requirement, but this minimum is a guideline.
[4] In the case that a course is equally taught, include proposed plans for faculty classroom observation and student evaluation of teaching.

Attached are assessment rubrics for the concept map and literature review, which will be used to evaluate relevant sections of the game design document such as, for instance, the project description section (i.e., literature review, concept maps, etc.). An annotated bibliography and project milestones serve as scaffolds for the game design document and final group narrative-drive video game prototype, respectively.

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

Students will apply problem-solving strategies for creative writing and computer programming. They will write original narratives that will be coded as a computer program to create their video game prototype. Students will also develop an accompanying game design document (i.e., analysis, design, and project description). Moreover, students will prepare and revise an annotated bibliography to facilitate their ability to make connections across academic disciplines. This strategy requires students to write one paragraph summarizing and assessing narrative structure and reflecting on assigned course readings as these relate to interactive storytelling.

10. Would the course be designated as:
☑ a College Option requirement[5]? ☑ an elective? ☐ a Capstone course[6]? ☐ other? Explain.

This course will satisfy the Interdisciplinary course requirement of the College Option component of City Tech's general education.

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[5] 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
[6] A course proposed as a Capstone course must be separately approved by the Capstone Experience Committee.