

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: 8/28/2015

Submitted by D. Robert MacDougall

Department(s): Social Sciences

II. Proposal to Offer an Interdisciplinary Course

1. Identify the course type and title:

☒ An existing course: PHIL2203, "Health Care Ethics."

☐ A new course _____

☐ A course under development _____

2. Provide a course description

This interdisciplinary course introduces students to issues at the intersection of health care and values, as well as the theories, principles, data, and literature addressing these issues. Students are required to critically interact with multiple disciplinary methods in order to reach their own conclusions about ethical behavior in health care. Interdisciplinary learning is furthered by assignments that require students to synthesize philosophy with other sources of relevant knowledge, particularly medicine and nursing.

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

4. What prerequisite(s) would students need to complete before registering for the course? Co-requisite(s)?
ENG1101 (Prerequisite)

5. Explain briefly why this is an interdisciplinary course.

This course is interdisciplinary because it integrates the knowledge and methods of the health care professions with the knowledge and methods of academic philosophy. Exploring the different methods utilized by, and knowledge generated from, these disciplines helps students understand how different approaches sometimes engender differing perspectives. So the course is organized so that most topics are treated in one session by a philosopher, and then in a second session, by a health care professional or scientist (although not always in this order). The health care sciences to be integrated with philosophy in this course include nursing, dental hygiene, chemistry, and biomedical informatics. When discrepant perspectives proceed from different disciplines, in order to find

appropriate solutions to problems or cases, students first must work out deeper problems about disciplinary authority and the relevance of different kinds of expertise. This practice can help students to better distinguish and clarify the major functions of the different disciplines, and to understand disciplinary boundaries and the limits of the methods of the involved disciplines with respect to the kinds of knowledge they can generate. It can also give them a deeper understanding of the relationship between science and the values it serves. Although the course will produce some cognitive dissonance by exposing students to differing disciplinary perspectives, the ultimate goal of the course is that students would learn to integrate the insights of the different disciplines, so that they can have a more completely developed understanding of the moral foundations of health care.

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 course requires students to consider the ways in which routine health care practices and institutions embody deep presuppositions about what is valuable in life, what health and disease are, and what the good society looks like. The central problem is, how might health care institutions be reformed to better reflect important human values, and how can health care practitioners contribute to reforming and improving these institutions?

Central disciplinary methods from philosophy will include analysis of, and critical thinking about, arguments; identification of presuppositions and key premises; construction of arguments; evaluation of overall schools of thought; familiarization with relevant philosophical literature; and critical and thoughtful engagement with peers. Central disciplinary methods utilized from the biological sciences will include analysis of data; critical interaction with empirical studies and their methodologies; gaining familiarity with major empirical findings; and interaction with practical elements of health care structure and delivery.

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

The course will require students to connect knowledge from various health care professions with philosophical knowledge, and each of the guest lectures by health care professionals is integrated with philosophical work on pressing ethical problems in either the following or preceding lectures by the philosophy instructor. A few examples can clarify how this structure enables and requires students to connect and integrate across-discipline knowledge and skills to solve problems.

One major norm in health care ethics is respect for autonomy. In sessions 6, 7, and 15 we talk about the ethical arguments for the value of autonomy, and the theoretical debate surrounding whether and to what extent respect for autonomy is something we owe to persons with mental illnesses or intellectual disabilities that undermine rational thought. In session 16, our guest lecturer will talk about the practical aspects of showing respect for the disabled. Students will learn about the varieties of disability, and what it means to address persons with special needs in person-centered language. Exposure to the practical aspects of showing respect to disabled persons can help clarify the importance of the philosophical concepts, as well as give students a

concrete idea of the ways in which philosophy can influence health care practice.

When learning about electronic health records, students will learn about the technologies available to health care institutions and the ways in which these health records can be used, not only for helping individual patients but also for quality improvement and even research purposes. Understanding the technical aspects of these records can help students understand the promise of using patient records for research, but also the ways in which access to this information can compromise privacy and medical confidentiality. In this case, scientific goals conflict with the traditional norms of health care ethics, and understanding both the science and the ethics can help students think through the variety of solutions that have been offered for achieving scientific goals even while protecting privacy and confidentiality.

When learning about cultural competence in health care, students will be exposed to a variety of practical ways in which health care professionals can respect culture in their day-to-day work. This is followed by a unit in which we discuss the ethics of withdrawing life-support, and the case we discuss is one in which the patient's culture and religion required that he be kept alive at all costs, despite strong objections from his physicians. Students must use the practical knowledge they have developed, as well as their understanding of core ethical concepts, to answer reflection question number 4 about this case.

Students are also required to integrate across-discipline knowledge and skills in the group presentation project. This project requires the group to work together as a group of persons with distinct areas of disciplinary specialty (since the project requires students to take on a variety of disciplinary roles). They are required to then integrate the various kinds of disciplinary knowledge they obtain individually into a coherent response to the pressing ethical problem in the case the group has been assigned. This assignment explicitly makes the integration of across-discipline knowledge and skills a major part of the course (as well as term grade).

☑ Synthesize and transfer knowledge across disciplinary boundaries

This course covers both classic theories of ethics and the basic analytic and evaluative methods of contemporary philosophy. These elements are applied to various problems and texts about medical practice. For example, we discuss both Kantian and virtue ethics foundations to the contemporary practice of informed consent, and discuss further how these theories may differ with respect to the importance of the family in the informed consent process.

This course also requires students to discern the differences between ethical and scientific issues. For example, when students are confronted with a case (such as in the group presentation), it is usually presented as a mixture of scientific, legal, and ethical details. Students have to work out which details are relevant for developing a recommendation. So a particular case may explain that physicians are scientifically divided about a patient's prognosis for survival and recovery, with some physicians insisting that recovery is likely and that continued treatment is morally necessary; but that the family of the patient is in complete agreement that the patient would not want to continue treatment under the present circumstances, based on the patient's known values and stated preferences. Students must discern which debate is the relevant one: the scientific one, or the moral one? Whose decision should prevail in this case?

The course is designed so that students learn about a variety of topics from (at least) two different disciplinary perspectives. For example, in session 22, students discuss the moral status of animals, and learn the variety of ethical considerations that help us develop a coherent view of that status. We will discuss both utilitarian and deontological accounts of the moral status of animals. In the following lecture, students learn about the scientific need for animal testing from professors in the chemistry department. Then, in their reflection paper, students are required to take both disciplinary perspectives into account as they grapple with the question, “should researchers prefer to perform research on animals prior to humans? Why and under what circumstances?” The same basic approach occurs with the other guest lectures as well (on electronic health records, cultural competence, working with persons with disabilities, and genomics).

Moreover, students are asked in several of the reflection questions to overtly explore ways in which the different disciplines can contribute to their understanding of ethical problems. This helps students to reflect critically on the ways in which they are synthesizing knowledge from different disciplines that have been addressed in class discussion and in the readings. These topics show up again for students on the test essay questions, which help reinforce what students have already learned. Students are also required to synthesize and transfer knowledge across disciplinary boundaries in the group presentation project. Here they must do their own research in one of the several disciplines relevant to the class, and then synthesize their knowledge with that of their group-mates across disciplinary boundaries to reach a final recommendation in their assigned case. For example, a student responsible for the philosophical report in the group presentation may find a philosophical essay arguing that families should have unfettered authority to insist on continuing artificial nutrition and hydration in all circumstances, while another student—looking at the clinical data—may discover that patients in end-stage dementia who stop eating and drinking typically survive as long as patients with the same condition who receive artificial nutrition and hydration, which suggests that there is no valid clinical reason for administering artificial nutrition and hydration to these patients, at least. Students will have to work together to refine the ethical position so as to take account of both philosophical and clinical concerns.

☐ Comprehend factors inherent in complex problems

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

☒ Recognize varied perspectives

Because the course is oriented towards teaching students to think critically, most issues are approached by studying different perspectives. For example, when discussing end of life decision-making, students read one author who believes that patient autonomy is absolute and must decide all end of life cases; and another author who believes that the wider community can

set limits on what patients can autonomously demand from health care institutions. These different perspectives are both from authors with background in philosophy. Students are also required to recognize different perspectives coming from lecturers from different disciplines, however. For example, the units on confidentiality and health records, decision-making for patients who are not competent, the use of animals in research, and the ethical aspects of genomics research all include one talk from a philosophical perspective (the instructor for the class, who is a philosopher), and one or more talks from those of other disciplines. After these sections, I have set aside some time for class discussion about the relationship between the perspectives offered by different disciplines. Students are also required to reflect on this relationship in their Reflection Question papers.

☒ Gain comfort with complexity and uncertainty

The course requires students to engage with different and often opposing perspectives on ethical problems encountered in the clinical context. Students are required to work their way through these perspectives and to draw their own conclusions, and then to defend these in course essays and in class. In particular, students are required to work with each other during the group presentation to reach a conclusion about what should be done in a particular case. The cases chosen are usually difficult, and often have no clear or obvious resolution. This forces students to think through the case carefully, while recognizing that the class or the professor may have a different perspective on the case than the one that they arrive at. Very few of the topics discussed in class have black or white answers; they are usually chosen because they have elicited a wide-range of perspectives in the literature or in society at large. The issues themselves require students to think without the reassurance that they will get either the “right” or “wrong” answer, only better or worse.

☒ Think critically, communicate effectively, and work collaboratively

The case presentation component, in particular, requires students to engage collaboratively with a particular case from different perspectives. Students are divided into groups and play a unique disciplinary role within their group. They must gather data from their chosen discipline themselves (we go over this in class), then bring their findings to their group. The group is responsible for synthesizing the individual findings from different disciplines into one integrated, interdisciplinary conclusion to the case. Students also learn to think critically, communicate effectively, and work collaboratively during class discussion, which proceeds in a very dialogical manner, encouraging a high degree of student participation, and which frequently requires students to interact with one another, especially when students express perspectives that are in tension with those of their classmates.

☐ 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?

This course requires students to develop **knowledge** of a variety of health care ethics issues and approaches to resolving ethics issues. In the first part of the course, students are exposed to a variety of ethical theories and philosophical methods for addressing ethics issues. In the second and third parts of the course, this knowledge is supplemented with presentations about method from various health care professions, and students learn how these professionals think about ethics issues in their field. Students apply knowledge of both kinds of methods to a variety of issues and cases, both in class and on assignments, and in this way gain the ability to continue learning how the material covered in class can apply to numerous issues that they will meet in their professional lives.

The course develops several key **skills** as well. Students are continuously exposed to core philosophical skills, such as recognizing, analyzing, and critiquing arguments. These skills are addressed both overtly at the beginning of the semester, and applied throughout the semester to new cases and issues. Students are required to further develop skills in critical interaction with arguments, development or synthesis of their own original arguments, and communicating these in class and in class projects such as the reflection papers and the group presentation. Students are also taught to do research in several areas, both philosophy and science, and to use this research in their case analysis.

The course further requires students to **integrate** knowledge and skills from various disciplines. This is required in class, and in reflection papers, but most pointedly in the group presentation, where students play “roles” of different disciplines, and must then work cooperatively with the other students who play other disciplinary “roles” in order to reach an integrated conclusion.

Finally, this course is a course on **values, ethics, and relationships**, so it would difficult to identify an aspect of the course that is not strongly relevant to the fourth learning outcome. Students are required to question their own values as they interact with various schools of philosophical thought and other perspectives, for the purpose of better refining their understanding of ethics. Most of the cases we discuss have personal, professional, and civic or cultural/global aspects to them. Students refine their understanding of the relationship between personal and professional duties, in particular, and refine their understanding of the role of the health care professions in the civic and/or global context.

9. Which department would house this course³? Social Sciences (Philosophy)

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

10. 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.

Since the course is a collaboration between Philosophy and numerous other City Tech departments, there is no single other department that would be appropriate for cross-listing with Philosophy.

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

I have identified 5 interdisciplinary learning outcomes in the Application. Below I explain how these interdisciplinary learning outcomes are assessed.

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

The course is designed to confront students with a variety of actual controversies within health care ethics. In many cases, the class receives different lectures from two or more disciplines on the same topic. Students are then required to write short reflection questions papers on the topic, incorporating what they have learned from both disciplines. These papers are graded according to the criteria laid out in the syllabus. Most of the questions include a question about the relevance of multiple disciplines to the question at hand, and students are graded on their answers to this and the other questions. The instructor also looks for evidence of individual critical thinking and reflection in these papers. The reflection questions then appear again on the mid-term and final. Second, students are required to participate in group presentations. Students are divided into groups, and then pick a role to play within the group that corresponds to a particular discipline (for example, “nurse,” or “philosopher”). Students are responsible for doing research associated with their particular discipline, and then developing an annotated bibliography and a written report on how their research pertains to the case at hand. Students are then required to work with other students playing different disciplinary roles to reach an interdisciplinary conclusion. Students receive individual grades for the annotated bibliography and written report, but share a grade for the final, interdisciplinary presentation. The grades may however be modified according to feedback received from the 360 degree evaluations.

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.

Synthesize and transfer knowledge across disciplinary boundaries

Students are confronted with knowledge from various disciplines that they must then utilize to reach a philosophical position, and which they must present as part of their argument for the reflection question papers, test essays, and group presentation. For example, when we talk about futility cases, we will discuss two different perspectives about who should decide when to remove life-support. Some authors suggest that this is a purely clinical decision, made according to medical or scientific criteria. Others have suggested that this is a philosophical question, with decision-makers incorporating values into their decisions even if they don't recognize this, and that the values should be explicitly delineated. Students must wrestle with these different perspectives and then figure out how to blend their understanding of the philosophical and scientific aspects to this kind of decision. Students' grades on these assignments reflect whether the student successfully makes use of both the scientific and philosophical elements common to these cases.

Recognize varied perspectives

Recognizing varied perspectives is a skill that is important in lectures, class discussions, and readings. The lectures offer various perspectives on single issues from lecturers from a variety of backgrounds. Students are encouraged to think and talk explicitly about the differences and similarities between the relevant presentations, and to critically examine whether the lecturers disagree, whether the lectures are complementary, and if so, how both disciplines might work together to shed light on an issue. Students then reflect on this individually in their reflection question papers. Students also must learn to recognize different perspectives within the classroom. Often students will disagree with one another. They learn to approach disagreements, or divergent perspectives, with an open mind and an interest in coming to understand those with other perspectives better. Students have ample opportunities to engage with one another, express their perspectives, and learn from classmates. The large percentage of the final grade that depends on participation (15%) reflects the fact that this is an interactive class, and we need a variety of perspectives to understand the subject matter adequately. Participation grades begin with about half the credits for participation given. They can then either earn points by making thoughtful comments in class that engage with fellow students and reflect knowledge of the readings and previous class discussions, or by visiting the professor in his office to discuss assignments, topics of interest, or anything else.

Gain comfort with complexity and uncertainty

Because of the increasingly diverse and pluralist society that students live in, the possibility of reaching the “correct” answers to ethical dilemmas seems more and more distant. In class, we discuss the variety of theories and approaches to the ethical life, and the ways that these sometimes compete or contradict one another with respect to specific issues. Students have to grapple with these foundational issues at the beginning of the semester, but they also must continue to reflect on them throughout the remainder of the semester, as they approach a variety of issues in the context of class lectures, discussions with other students, reflection papers, and the group project. Moreover, guest lecturers will likely sometimes present perspectives on ethical issues that are in tension with the philosophical perspectives developed in the course. Students will have to wade through these items to reach their own conclusions, both about the issue itself, and the authority of different disciplines to address various questions. The ability to keep in mind diverse perspectives and to engage with those who reasonably disagree is a benchmark for applied ethics work. Students are expected to demonstrate thorough understanding of perspectives competing with their own in their reflection papers, on test essays, and in the group presentation. This is explicitly denoted in the criteria for these assignments.

Think critically, communicate effectively, and work collaboratively

Above all, students in this course learn to think critically about values in health care. Thinking critically is an important part of all philosophical inquiry and this course is no exception. Requiring students to reach a conclusion about different cases or issues discussed in class is one method of requiring students to think critically. Because students are exposed to multiple perspectives, forcing them to take a position requires that they disagree with some of the perspectives discussed in class. In order to do this well, they must give reasons and arguments for preferring one view over others. Students begin to think critically in class, when they are exposed to various issues and arguments. We learn as a class to interact critically with arguments given in readings. Students are encouraged to communicate their insights with regard to these arguments, and to engage with one another. This process is evaluated in their participation grade, as discussed above. Students are encouraged to work collaboratively during these discussions as well, for example, when we divide into groups to discuss an issue. However, the culminating project—the group presentation—requires students to work together in an overtly interdisciplinary context to reach mutually acceptable resolutions to cases. Student success in collaborating on this portion of the class is reflected in the instructor’s evaluation of the presentation, and further information for evaluation is provided during the 360 degree evaluation, wherein students evaluate the contributions of other group members to the final presentation.

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

There will be some reading and lecture on the idea of interdisciplinarity itself. This will focus on the relationship of philosophy to other disciplines. Furthermore, the course lecturers come from multiple disciplinary perspectives. I have asked these lecturers to provide lectures that look at issues from their own disciplinary perspective. In most cases,

these lectures are preceded by a lecture on the same topic from the perspective of philosophy (given by the course instructor). Then, after guest lecturers finish, the class discusses the relationship between philosophy and the discipline represented by the guest lecturer. Third, students are required to write short “reflection question” papers that allow them to do their own thinking about the relative contribution of philosophy and other disciplines to some issue or question, and how interdisciplinary perspectives can help to resolve or inform the issues at hand. A fourth strategy for facilitating interdisciplinary connections is the group presentation. The group presentation requires students to take a specific disciplinary approach to a case, and then work together with other students (taking different disciplinary approaches) to resolve the case. Students are required to present their findings together in class. They are further required to provide explicit reflection on the way in which interdisciplinarity helped them to reach their conclusions.

11. Would the course be designated as:

☒ a College Option requirement⁷? ☒ an elective? ☐ a Capstone course⁸? ☒ other? Explain.

This course is required for many of the health care professional degrees (such as nursing). It can also be taken as an elective or towards fulfillment of the “Individual and Society” Pathways requirement. As an interdisciplinary course, it could also fulfill the College Option requirement.

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.