

Interdisciplinary Methodology: A Graduate-Level Course in Global Studies

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By definition, Global Studies is global in scope; at best this field of study is interdisciplinary as well. Individual programs at various institutions have made great strides in crossing disciplinary lines in their educational programs. Nevertheless, while university public relations releases speak confidently of the interdisciplinary, transdisciplinary, and cross-disciplinary advances in many scientific fields, the overwhelming majority of instruction remains constrained within disciplinary limits. This brief essay describes one effort, central to a collaborative effort in Global Studies, that has succeeded in bringing together advanced graduate students from many fields and enabling them to share the experience of exploring the character and interplay of several disciplines. The purpose of this work, at the level of individual students, is to strengthen their skills in learning basic competence in fields other than their own core discipline. At the level of the Global Studies program, the purpose is to develop a framework and a language for discussing multiple disciplines at once, and for using that language to sustain a broadly interdisciplinary discourse.

Keywords: *Global Studies, World History, course objectives, Schedule and Readings.*

Global Studies and World History at the University of Pittsburgh

At the University of Pittsburgh, a developing program of graduate study links Global Studies and World History. The alliance of the centers – the Global Studies Center and the World History Center – brings a historical dimension to global studies, and an interdisciplinary dimension to world history.¹ Global Studies, with focus on the themes of global health, security, society, economy, awards graduate certificates based on an 18-credit course of study. The World History Center emphasizes research, graduate and undergraduate study, and awards a History PhD with thematic concentration in world history. The two centers collaborate in global educational outreach to the community and to secondary schools.

The course in Interdisciplinary Methodology was taught in 2009 and 2012 and is scheduled to be taught again in 2015. It has enabled the university to create a space where

¹ The Global Studies Center (<http://www.ucis.pitt.edu/global>), directed by Prof. Nancy Condee, is housed in the University Center of International Studies (UCIS) at the University of Pittsburgh and is supported by Title VI funding from the U.S. Department of Education. The World History Center (<http://www.worldhistory.pitt.edu>), directed by Prof. Patrick Manning, is housed in the Department of History. The Global Studies Center and the World History Center have a joint membership in the international Global Studies Consortium.

cross-disciplinary analysis is formally recognized, encouraged, and developed. The course has strengthened each of the centers, their relationship, and has expanded interdisciplinary discourse in other parts of the university.

Purpose and Objectives of the Course

This is a course in interdisciplinary theory and methods for graduate students who have achieved substantial strength in an academic discipline – in the social sciences, humanities and arts, natural sciences, or information sciences – and who wish to develop strength in an additional discipline and in the interplay of disciplines. Each student reads to prepare collaborative presentations describing key aspects of two disciplines, develops statements on the frameworks, assumptions, links, parallels, and contradictions of various theories, and prepares a major paper on a previously unfamiliar methodology. Each discipline is discussed at an introductory level, but the exercise of comparing and connecting disciplines requires advanced conceptualization. The course works in association with a practical research project to develop a world-historical dataset containing systematic, worldwide data on selected variables and topics.²

The general objective of this interdisciplinary graduate course is to encourage the development of a multidisciplinary academic discourse at the University of Pittsburgh, particularly emphasizing global perspectives, in which interested graduate students and faculty members participate, under the aegis of the Global Studies Center and the World History Center. The specific course objectives are:

- to introduce students to a wide range of disciplines, theories, and methods. Discussion is to include the framework, data, method, and analysis for each discipline;
- to enable individual students to develop substantial strength in a new discipline and method of their choice;
- to compare and contrast the various disciplines, seeking out links and parallels among them;
- to develop a common language for cross-disciplinary discourse, encompassing multiple disciplines;
- to contribute to creation of a global historical dataset reflecting many of these disciplines: such a dataset is developing through the Collaborative for Historical Information and Analysis (CHIA).

At the end of the course, students should:

- have gained literacy in disciplines in the humanities and arts, social sciences, natural sciences, and information sciences. By ‘literacy’ is meant:
 - familiarity with elements of the scope (subject matter, variables and frameworks), method (types of analysis), and theory of multiple disciplines;
 - familiarity with the range of subfields in each discipline, especially the distinctions among small-scale and large-scale (or micro and macro) dimensions of the discipline;
 - familiarity with categories of empirical study in the same disciplines;
 - familiarity with the similarities, links, complementarities, and contradictions of various disciplines and their theories.

² Collaborative for Historical Information and Analysis (CHIA, <http://www.chia.pitt.edu>), sponsored by the World History Center.

- Have developed particular strength in one new methodology;
- have developed a language for cross-disciplinary discussion and analysis;
- have gained experience in the combination of data from different disciplines to construct a global picture of aspects of human society.

Instructor and Background

I have been the instructor each time the course has been given. I have long been a practitioner of cross-disciplinary study and sought out the opportunity to teach this course. I am now principally a world historian but was trained as an economic historian of Africa with a Master's degree in Economics and with an undergraduate degree in Chemistry.³ My graduate study in African history included cross-disciplinary course work and a concluding seminar, taught by Jan Vansina, in which students worked on archaeology, historical linguistics, economics, politics, social anthropology. Since receiving my degree, I have conducted additional study and practice in demography, historical studies of language, information science, and multimedia production. This provided a basis for leading a course in which students could address multiple disciplines at varying levels of depth, and could share the experience and exchange their understanding not only of specific disciplines but of cross-disciplinary analysis more broadly. In my opinion, the qualification to be instructor of such an interdisciplinary course is not mastery of the various disciplines but a willingness, based on past experience, to take on new disciplines and gain a substantial if basic acquaintance with each new field.

Students by Discipline

2015 – the course will now be required for graduate students in World History; other students are expected from a broad range of disciplines.

2012 – students were based in Communications, Economics, Information Science (4), Linguistics, Political Science, Public Health, Slavic Language & Literature, Sociology (2), Statistics, and Theatre.

2009 – students were based in East Asian Studies, Education, English (4 total, in cinema, rhetoric, composition, and literature), and History (7 total in various regional fields).

Initial Presentations and Discussions

During the first two weeks of the course, the instructor gives initial presentations providing background to disciplinary and interdisciplinary study and also to model the presentations that student groups are to give later in the semester. The initial presentation reviews epistemological dynamics – the interplay of disciplines, frameworks, theories, evidence, analysis, and verification. The second presentation addresses philosophical maps of the disciplines, distinguishing the succeeding analytical approaches of positivism, modernism, postmodernism and realism – and asking whether the present generation will be able to sustain multiple philosophies of analysis. In the 2009 version of the course, I continued in week three to give a presentation on quantitative social science and led students in an exercise on locating and reading articles in major scientific journals: *Nature*, *Science*, and *PNAS* (*Proceedings of the National Academy of Sciences*).

³ Patrick Manning, Andrew W. Mellon Professor of World History (<http://www.manning.pitt.edu>).

Also in the first two weeks of the course, students debate and select the disciplines they wish to explore, the order in which they will discuss the disciplines, and the membership of the teams to explore each discipline. In the third week, students identify the topic for their major paper and submit an abstract for the paper: the abstracts are posted and shared among all in the class.

The Disciplines We Explored

Disciplines explored in 2012, in their order of discussion: Economics; Political Science; Sociology; Anthropology; Linguistics; History; Visual arts; Literature; Psychology; Environment; Social evolution and systems.

Disciplines explored in 2009, in their order of discussion: Literary Theory; Religious Studies; Literacy; Ecology; Linguistics; Theories of Pedagogy; Sociology; Cultural Anthropology; Oral History; Gender Studies.

Student Assignments

In general students are to explore the disciplines, present two disciplines to their colleagues, develop strength in one new discipline, and share in an expanding, transdisciplinary discourse.

(1) Each week, students are responsible for completing the assigned reading, exploring optional readings, and gaining familiarity with the elements of the discipline under study in that week.

(2) Each week, two or three students select, assign, and lead discussion on readings conveying the nature of the method assigned for that week and the significance of its results. (Students select their assignments at the start of the semester.)

(3) Students prepare to join actively in each week's cumulative discussion by scrutinizing the epistemology apparent in each method and by working to develop a language for cross-disciplinary discussion.

(4) Each student selects a method to learn in depth and submit, at the end of the semester, a substantial paper articulating that method and discussing an application. The paper is posted and discussed.

For each week, the instructor selects one or two concise 'core readings' that provide an introduction to the discipline under study. In the eight meetings from Week 3 through Week 11, groups of three students present on their selected discipline or disciplines. In addition to the core reading assigned by the instructor, the presenters select and assign readings of no more than 150 pages, and distribute them via an online resource at least seven days in advance of their discussion. Student discussion leaders are to lead discussions during the 100 minutes of discussion in which they present, rather than lecture. That is, the instructor assesses the discussion leaders according to the breadth and depth of the discussion during the time allocated to them, rather than simply the skill of their lecture.

Topics for possible discussion of a methodology include: subject matter of the discipline, the objectives of analysis, the materials of study and empirical evidence, the methods of analysis, and the contending or succeeding theories in each field. In addition, students are encouraged to identify the main journals and standard works in each field, the principal practical and theoretical debates, the evolution of the field, the outstanding accomplishments of the field, and the links of each field to other fields.

Examples from Presentations and Discussions

One recurring result in student presentations on disciplines was that they addressed a significant amount of their time to tracing the history of each field. For fields such as political science and sociology, but also for psychology and ecology, students found it fascinating to see how the methods, theories, and debates in each field changed over time. Another recurring point was that students found models of scientific method in the standard materials of several disciplines, and sought to identify the variations on a common model. The notion of equilibrium was remarkably widespread, appearing not only in Economics but also in Ecology. Equally striking, however, was the immense amount of variety in each discipline, so that none of them could be characterized by a single theory or analytical focus. The diversity of disciplinary analysis reflects especially the range of scales from micro to macro within each field: Microeconomics and Macroeconomics have quite different theories, and much the same can be said for Psychology, Ecology, and Linguistics. While certain subfields gain prominence and cross-disciplinary reputations – behavioral economics has been one such in recent years – other fields within the same discipline may continue productively along quite different lines.

Despite the importance of recurring themes in discussing the various disciplines, each discipline and each presentation brought attention to particular issues of interest. In political science, discussion centered on the debate over ‘perestroika’, the argument by a somewhat dissident group of scholars that quantitative studies, dominantly electoral, had led to neglect of important qualitative issues in politics. In Sociology, the discussion focused on the distinctive analysis of Bayesian statistics.

For linguistics, the presentation focused especially on the issue of metaphor, beginning with the simple matter of social valuations placed on the terms ‘up’ and ‘down’, and showing some of the many other concepts that are conveyed through metaphor. The presentation of visual arts and literature posed very basic questions about the origins and nature of creativity, expression, interpretation – it presented art and science first as contradictory, then as unified. For ecology, the presenters used organizational charts to show the tiny place of this field within environmental science and within the academy more broadly; they also focused on non-equilibrium studies of ecology. The concluding presentation on systems and social evolution traced social evolution through six disciplines, emphasizing the tension between conflict and cooperation.

Some Results of the Course

Each student was to write a paper of no more than 25 pages in length, presenting a critical exploration and defense of a methodology likely to be of importance to his or her future research. The first two pages of each paper are to be a summary of the entire paper aimed at facilitating discussion among students in the course. The methodology could be that of a single discipline or sub-discipline, or a combination of techniques from different disciplines. The papers must reflect substantial reading and reflection, and must convey the logic and the relevance of the problem to significant research issues. This is not a research paper, but an articulation and defense of a methodology that could readily be applied to research. Titles of the 2012 papers are shown in Appendix 3: none were publishable, yet it may be that they reflect the opening of new and broader thinking by the authors.

In addition to the readings listed in the Course Schedule, students had the opportunity to develop more extensive bibliographies for disciplines of interest to them. These might include: condensed statements of scope, theory, and method; introductory textbooks; ad-

vanced handbooks; scholarly journals; outstanding recent works (articles or books); and studies including or applicable to historical data.

One concrete result of the course was the publication of a paper co-authored by the instructor and a student. As promised to students at the beginning of the course, I was able to select one of the strongest students to work with me as a research assistant on an aspect of the CHIA project for building a world-historical archive. I selected Sanjana Ravi, a public health student who had strong skills in articulating analytical frameworks and dynamics. In the fall of 2012 we worked together in defining the completing an article that used a systems approach to encompass the study of human populations from the multiple disciplinary perspectives of Demography, Economics, Political science, and Sociology. The reason for this effort to link disciplines was that the construction of a world-historical archive would require combining the strengths of all these disciplines in order to make estimations to begin filling in the large amount of missing data.⁴

As usual in education, the students pass through in one or several years, and only the teachers remain in place. Yet somehow the ethos of a curriculum makes itself felt, perhaps simply because of the repeated work of the teacher but more likely because of interactions of students with each other in the classroom and beyond it. Even the institution may adjust to developing lines of inquiry within its walls. So I think there is hope that collaborative instruction and learning of interdisciplinary methods may gradually become a part of university life.

Appendix 1. Course Schedule and Readings (revised, April 2012)

Week 1 (January 9). *Introduction: Epistemological dynamics* [Manning].

Reading: King, Keohane, and Verba, *Designing Social Inquiry*, pp. I–xi, 1–33.

(January 16) – No class: Martin Luther King, Jr. Holiday.

Week 2 (January 23). *Philosophy: Positivism, Post-modernism & Realism; causation and feedback.*

Presenter: Patrick Manning.

Reading: King, Keohane, and Verba, *Designing Social Inquiry*, pp. 34–114.

Wilson, E. O., *Consilience* (New York: Knopf, 1998), chapters 1 and 2.

Campbell, Donald T., *Methodology and Epistemology for Social Sciences*, vii–xix.

Thompson, Willie, *Postmodernism and History*, 6–26, 56–73.

McNeill, William H., ‘Passing Strange’, *History and Theory* (2001).

Week 3 (January 30). Social Science 1. *Economics.*

Presenters: Helga Cabellero-Benitez, John Christie-Searles, Sanjana Ravi.

Reading: King, Keohane, and Verba, *Designing Social Inquiry*, pp. 115–230.

Wikipedia, ‘Economics’, <http://en.wikipedia.org/wiki/Economics>

Humphries, Jane. ‘Rational Economic Families? Economics, the Family, and the Economy’. In Joanne Cook, Jennifer Roberts, and Georgina Waylen (eds.), *Towards a Gendered Political Economy*. London: MacMillan Press, 2000.

Week 4 (February 6). Social Science 2. *Political Science.*

Presenters: James Osborne, Sharon Quinsaat, Qi Zhang

Reading: Schramm, S. F., Caterino, B. (eds.) *Making Political Science Matter: Debating Knowledge, Research, and Method* (New York: New York University Press, 2006).

Week 5 (February 13). Social Science 3. *Sociology.*

⁴ Patrick Manning and Sanjana Ravi, ‘Cross-Disciplinary Theory in Construction of a World-Historical Archive’, *Journal of World-Historical Information* 1 (2013): 15–39. doi: 10.5195/jwhi.2013.3.

- Presenters: Jeremy Burton, Jinyuan Liu, James Osborne
 Reading: Smith, Philip (ed). *The New American Cultural Sociology* (Cambridge: Cambridge University Press, 1998).
 Alford, Robert. *The Craft of Inquiry. Theories, Methods, Evidence* (Oxford: Oxford University Press, 1998).
- Week 6 (February 20). Social Science 4. *Anthropology*.
 Presenters: Sarah Bishop, Lauren Collister, Beach Gray.
 Reading: Barth, Fredrik, *et al.*, *One Discipline, Four Ways: British, German, French and American Anthropology* (Chicago: University of Chicago Press, 2005).
- Week 7 (February 27). Humanities and Arts 1. *Linguistics*.
 Presenters: Ryan Champagne, Courtney Lauder, Peter Wood.
 Reading: Wikipedia, 'Linguistics', <http://en.wikipedia.org/wiki/Linguistics>.
 (March 5) – Spring Break.
- Week 8 (March 12). Humanities and Arts 2; Social Science 5. *History*.
 Presenters: Sharon Quinsaat, Ya-Wen Yu, Qi Zhang.
 Reading: Manning, Patrick, *Navigating World History* (New York: Palgrave, 2003), 313–323.
- Week 9 (March 19). Humanities and Arts 3. *Literature and Visual Arts*.
 Presenters: Ryan Champagne, John Christie-Searles, Sanjaya Ravi.
 Reading: Castle, Gregory. *The Blackwell Guide to Literary Theory* (Oxford: Blackwell Publishing, 2007).
 Smith, Terry, *What Is Contemporary Art?* (Chicago: University of Chicago Press, 2009).
- Week 10 (March 26). Natural Sciences 1; Social Science 6. *Psychology*.
 Presenters: Jinyuan Liu, Peter Wood, Jungwon Yeo.
 Reading: Wikipedia, 'Psychology', <http://en.wikipedia.org/wiki/Psychology>.
- Week 11 (April 2). Natural Sciences 2. *Environmental Studies*.
 Presenters: Beach Gray, Jeremy Burton, Sarah Bishop.
 Reading: Scoones, I. 'New Ecology and the Social Sciences: What Prospects for a Fruitful Engagement?' *Annual Review of Anthropology*, 28 (1999) pp. 479–507.
- Week 12 (April 9). Combining Disciplines 1. *Social Evolution and Systems*.
 Presenters: Helga Caballero-Benitez, Sanjana Ravi, Lauren Collister.
 Reading: Bentley, Jerry (ed.), *The Oxford Handbook of World History* (2011).
 Carneiro, Robert L. 'Stellar Evolution and Social Evolution: A Study in Parallel Processes', *Social Evolution & History* 4 (2005).
- Week 14 (April 16). Presentations 1.
 Presentation of main papers (first half).
 Reading: paper summaries circulated by authors.
- Week 15 (April 23?). Presentations 2.
 Presentation of main papers (second half).
 Reading: paper summaries circulated by authors.

Appendix 2. Titles of Methodological Papers, April 2012

1. 'A Methodology of Experience: A Defense of Oral History within the Field of Communication'.
2. 'Choosing wisely: Behavioral economics and information overload'.
3. 'Behavioral Economics: the bounded rationality and prospect theories as critiques of the rationality paradigm'.
4. 'What Does This Word Mean? Reframing Disciplines in Interdisciplinary Communication'.

5. 'Tanzanian Benedictine Monasticism: Modernization through Primary Education'.
6. 'Measuring Advertisement Reaction'.
7. 'Seeing Is More Than Believing: Visual Ways of Knowing'.
8. 'In Defense of Qualitative Case Studies and their Utilization in Indigenous Politics'.
9. 'Using Comparative Method in Explaining the Role of National Context in Home-land-Oriented Migrant Mobilization'.
10. 'The Patient's Dilemma: A Methodology for Infectious Disease Investigation'.
11. 'A Cognitive Turn Toward Performance Scholarship'.
12. 'Post-Colonialism: Toward an Interdisciplinary Approach of Cultural Politics and Postmodernist Historiography'.
13. 'The mathematicization of sociology and Political Science: a new institutionalism comparison'.

Appendix 3. Comments from Students, June 2013

Here are comments from three students in the course, written a year after the course ended. They suggest that the course did indeed make some progress in enabling students to address cross-disciplinary issues in a more confident fashion.

- 'The course allowed me to see the connectivity between the social sciences; moreover, I was able to see familiar skills sets, familiar literature, and familiar diction applied to different social sciences in different ways.'

- 'We all spoke different languages, and this course introduced me to some tools that help bridge that language gap between our disciplines. ...'

I had already been an Open Access advocate in my own scholarly work, but in the class I heard about how others had similar issues surrounding access to data and research and no one knew how to fix them. ... I decided that I wanted to devote my efforts to helping to remedy that problem and turned my career path in a new and exciting direction: Open Access policy.'

- 'When I read a research paper, for example, I now pay closer attention to the assumptions underlying the authors' hypotheses and chosen methods. As someone who works in a multidisciplinary profession, I find these skills to be invaluable.'