Counter-Proposal for General Education Reform

Submitted to the Faculty Senate
14 February 2009

It has been said that the best strategy for successful General Education reform creates opportunities for faculty to talk *across* disciplinary and Divisional boundaries about what the curriculum should achieve.[1] Disciplinary and divisional conversations are important, but they tend to elicit protection of turf and worries about staffing, workload and resources. On the other hand, interdisciplinary and inter-Divisional conversations promise more creative thinking as individuals embrace the bigger educational project and play off the ideas of their colleagues. Ideally, such *collective* inquiry should happen very early in the review process, well before the project is handed off to a review committee or task force. At the very least, good curriculum reform should be mission-linked and research-driven. It should involve careful analysis of (1) the problems and successes known to exist in the current curriculum; (2) student evaluations of the curriculum and other assessment data; (3) curriculum models used elsewhere; (4) national curriculum trends; (5) the professional literature on General Education reform; and (6) what employers expect of university graduates.

This proposal describes an alternative General Education curriculum based on the University Learning Goal that was approved by the University Planning Advisory Council (UPAC) and the university community in 2007.[2] This goal says that *"We will provide an outstanding educational experience that empowers students to integrate and apply knowledge from across the disciplines and imagine new possibilities for themselves, their communities, and the world."* This goal emphasizes interdisciplinary and engaged learning that serves our Public Good vision. It commits us to doing more, rather than less, interdisciplinary work. It warrants greater involvement of science and professional school faculty in the high end piece of General Education. It commits us to an educational experience that is future-oriented, with an eye to nurturing intellectually curious, life-long learners and citizens.[3] The Learning Goal's emphasis on integration, application, and imagination aims, in fact, at an education that is not merely interdisciplinary but genuinely *transdisciplinary*.[4] This proposal justifies the curriculum using the multiple considerations identified above, and reflects a bit on why this curriculum is needed now and what it will take to make it work.

I. Structure: *University Core Curriculum*. Name changed from "University Requirements." There are two components to this model: (A) *Core Foundations* and (B) *Core Conversancies*.

A. *Core Foundations Curriculum*:
First Year Seminar: 4 credits. Unchanged.
Writing and Rhetoric: 8 credits. Unchanged.

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[1] Gaff, J. 2004 What is a Generally Educated Person? *Peer Review*, Fall. Available at http://www.aacu.org/peerreview/pr-fa04/pr-fa04feature1.pdf
[2] http://www.du.edu/chancellor/vision/
[3] For background on development of this learning goal see the *Faculty Forum*, http://130.253.4.214/index.php/2007/11/04/new-vvmg-statements-back-story/ (on campus access; VPN from off-campus).
[4] Klein, J. 1990 *Interdisciplinarity: History, Theory, Practice*. Wayne State University Press, Detroit.

Language: 12 credits. Unchanged.
Mathematics: 4 credits. Unchanged.

Arts & Humanities Foundations: 8 credits.

Students take 2 courses in Arts & Humanities. We retain the prefix AHUM to designate these courses. They communicate the subject matters and ways of knowing that have traditionally defined the Arts and Humanities. Faculty have wide berth for teaching the philosophies, values, and practices that define artistic and humanistic inquiry, and for defining learning outcomes. Appointed faculty in other Divisions, Schools and Colleges may also participate in the AHUM Foundations curriculum, given that Foundations is outcomes-driven rather than strictly division-based. A newly created "Core Curriculum Oversight Committee" with broad purview sponsors regular discussions among AHUM faculty about how any two of these courses, taken together, produce a solid foundational experience in the Arts and Humanities while also serving the university's general undergraduate learning outcomes. The committee ensures that there is good "horizontal" integration of the AHUM Foundations curriculum. AHUM courses may also count toward a major or minor in the Division.

Social Sciences Foundations: 8 credits.

Students take 2 courses in Social Sciences. We retain the prefix SOCS to designate these courses. They communicate the subject matters and ways of knowing that have traditionally defined the Social Sciences. Faculty have wide berth for teaching the theories, methods, and epistemologies that characterize social scientific inquiry and for defining learning outcomes. Appointed faculty in other Divisions, Schools and Colleges may also participate in the SOCS Foundations curriculum, given that Foundations is outcomes-driven rather than strictly division-based. The newly created Core Curriculum Oversight Committee sponsors regular discussions among SOCS faculty about how any two of these courses, taken together, produce a solid foundational experience in the Social Sciences while also serving the university's general undergraduate learning outcomes. It ensures that there is good horizontal integration of the SOCS Foundations curriculum. SOCS courses may also count toward a major or minor in the Division.

Natural Sciences Foundations: 8 credits.

Students take a 2 course, lab-based sequence in the Natural Sciences. A required third course that promotes the cause of scientific literacy is re-located to the Core Conversancies curriculum, described below. The two NATS Foundations courses are either:

a. thematically organized using the same array of NATS courses that exists at present, or

b. substantially re-worked as a common "Great Ideas"[5] curriculum with multiple sections. Each section is tweaked to suit the particular interests and expertise of the primary instructor.

[5] Trefil, J. 2008 Science Education for Everyone: Why and What? *Liberal Education*, Spring. Available at http://www.aacu.org/liberaleducation/le-sp08/le-sp08_Trefil.cfm;
Greene, B. 2008 Put a Little Science in Your Life. *The New York Times*, June 1. Available at http://www.nytimes.com/2008/06/01/opinion/01greene.html?_r=1&scp=1&sq=brian%20greene&st=cse.

B. ***Core Conversancies Curriculum***: 12 credits.

The term "conversancies" is inspired by the work of Rudolf Weingartner[6], Ruth Grant[7], Richard Rorty[8], and others. For Weingartner, "conversancy with an area or field of knowledge implies a perspective sufficiently broad so as to enable a student to see the field's relations to other worlds." In this view the "pedagogic road to conversancy" is best served not by courses rooted in disciplines or "pieces of academic fields" but rather by courses that address much bigger topics, issues, and problems. Grant considers "good conversation" to be a "non-partisan, ethical activity necessary for effective public discourse in a democratic society." It "establishes our sense of ourselves in relation to society as a whole…to be part of the conversation is to be part of the community." For Rorty, "edifying conversation" is a discourse in which we join with others in an attempt to "make sense of the multidimensional aspects of human experience." It is a project of finding "new, better, more interesting, and more fruitful ways of speaking." The conversation involves "being prepared to listen and learn from others, as well as to respond and reconstruct our own views, as we investigate together what it means to be a human being and how this might be brought about through education."

This concept of high-end General Education nicely connects to DU's Vision, Values, Mission, and Goals. Students take three distinctive, interdisciplinary courses specifically designed for the Conversancies curriculum, as they do for the current Core. In these courses students bring foundational core knowledge, accumulating disciplinary expertise, and their own maturing intellect to bear on a distinctive set of intellectual challenges.

The Core Conversancies curriculum complements and enriches the major. Students test what they've learned in their major and their ability to contribute to broader conversations about complex topics. In other words, they "transfer knowledge and skills from one setting to another."[9] They navigate and negotiate disciplinary differences among themselves, mindful of the inherent limitations of discipline-based approaches to understanding the world. They look to integrate knowledge and justify belief (i.e., exercise "reflective judgment" [10]) in increasingly sophisticated ways. They explore the possibilities for developing new concepts, new methods, and even new borderland[11] fields that unify knowledge and better address the major issues and problems of our time. They imagine new formulations that transcend traditional disciplinary understanding. In so doing they begin to move from interdisciplinary work to work that is genuinely transdisciplinary.

This is a tall order. It requires a robust, high-end curriculum that provides ample opportunities for practice—certainly more than can be offered by a single seminar.

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[6] Weingartner, R. 1993 *Undergraduate Education: Goals and Means*. Oryx Press, Phoenix AZ. See also "On the Practicality of a Liberal Education", *Liberal Education* (Summer 2007). Available at http://eric.ed.gov:80/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/31/9a/c2.pdf.

[7] Grant, R. 1996 The Ethics of Talk: Classroom Conversation and Democratic Politics. *Teacher's College Record* 93(3):470-482;

[8] Rorty, R. 1979 *Philosophy and the Mirror of Nature*. Princeton University Press, Princeton.

[9] Gaff, J. 2004 What is a Generally Educated Person? *Peer Review*, Fall. Available at http://www.aacu.org/peerreview/pr-fa04/pr-fa04feature1.pdf

[10] http://www.umich.edu/~refjudg/reflectivejudgmentmodel.html

[11] Wilson, E.O. 1998 Resuming the Enlightenment Quest. *Wilson Quarterly*, Winter. Available at http://www.naturalism.org/OffSite_Stored_Pages/WQ-WILSON.htm.

Conversancies courses could be distributed across three themes defined by faculty (as at present) or they could be mixed and matched at will, perhaps in ways that build particular core literacies.[12] Minimally, they must focus on Big Questions and topics conducive to testing a student's ability to integrate and apply knowledge. Because professors are known to teach some pretty esoteric stuff—the legacy of 20th century academic specialization—not every topic will do, no matter how enthusiastically or passionately presented. All courses are approved by the Core Curriculum Oversight Committee.

A Core Conversancies course that promotes the cause of scientific literacy is required of all students, thereby topping off the science experience gained in NATS Foundations. These science seminars would carry no prerequisites, they could have an associated lab, and they would employ NSM graduate teaching assistants. This "2+1" model of science education for non-majors is perfectly consistent with that part of the NATS curriculum mission statement[13] that states *"...we seek to engage our students in the theory, application and social context of contemporary scientific issues. Such issues include exploration of the strengths and limitations of scientific knowledge, and reflection on the connections between the Natural Sciences and other domains of knowledge from the Arts, the Humanities and the Social Sciences*." Any course that seriously and explicitly reflects on such connections is, by definition, a Core Conversancies course.

One of the Core Conversancies courses must be writing intensive. Only one study abroad course may count toward the Conversancies requirement.

Core Conversancies faculty are drawn from across the university, including the professional schools. Adjunct faculty may be included if they bring significant knowledge (including workplace experience), teaching skill, and dedication to Core ideals to the table. It is the responsibility of a revived and actively-functioning "Core Curriculum Administrative Group" (consisting of the Provost or Provost-designate and the academic deans) to incentivize faculty participation in the Conversancies curriculum so as to build capacity and thereby relieve the current burden on faculty in AHSS. It is the responsibility of the Core Curriculum Oversight Committee to sponsor regular discussions between Core Foundations and Core Conversancies faculty so that the entire curriculum can maintain good "vertical" integration.

Total number of general education credits: 64.

II. Rationale for this Curriculum

The General Education program currently in place provides for the curriculum's revision and renewal. Nothing in the undergraduate experience has changed so dramatically since 2000 that this renewal model is *a priori* unworkable. It responds to both the successes and the limitations of the current curriculum. *Most importantly, this model privileges the long-term interests of students over the self-interest of departments and divisions*. It addition to our Learning Goal it is based on the following substantive considerations:

[12] *Faculty Forum*, http://130.253.4.214/index.php/2006/11/09/in-praise-of-core/ (on campus access; VPN from off-campus).
[13] NSM Faculty Meeting minutes, 29 April 2008. Available at https://portfolio.du.edu/pc/port2?page=3&uid=4365.

- American Association of Colleges and Universities (AACU) recommendations for Learning in the New Global Century. This report[14] is informed by the assumption that the best learning for the 21st century is *integrative* learning. It notes that the major issues and problems of our time "transcend individual disciplines." It implores higher education to "break out of the academic categories and silos" within which we currently work, and "create new crosswalks and communal spaces that support educational collaboration across traditional academic dividing lines." This goes especially for the line between the liberal arts and sciences and the professional fields. It emphasizes the global *interdependence* of peoples, and calls for better *intercultural* literacy and competence. It asserts that "all students need practice in integrating and applying their learning to challenging questions and real-world problems." In short, the language of the report emphasizes *interaction* and *integration*. This implies a commitment to learning that is *inter*disciplinary, not simply cross-disciplinary or multidisciplinary.

  In a separate report[15], the AACU rejects the prevailing "balkanized approach" to general education that concentrates study in the first two years and that ordinarily precludes a robust "upper-division component". It recommends a general education program that "extends through all four years." It also challenges the "vision of a self-contained major" that continues to dominate undergraduate curricula generally. It is quite explicit in arguing that "the major alone cannot do the required job of preparing students for high-quality performance in any field of endeavor." In fact, the AACU identifies a liberal arts education *with* an interdisciplinary education.

  In its most recent issue of *Peer Review*[16] the AACU reaffirms these commitments to "intentionality and integration." It highlights some examples of new curricula that put them into practice. Some of these curricula look to break with the outdated "modular" curriculum within which we have been working for the past century and which is described by AACU as "outdated" and "increasingly dysfunctional." Others, however, find the traditional organizing framework of Arts and Humanities, Social Sciences, and Natural Sciences to be perfectly compatible with the newer commitments to outcomes-based learning.

- Research completed by the UPAC Environmental Scanning Task Force. Forecasts of the future workplace suggest that our students will increasingly be taking jobs that didn't exist when they entered college, and that they'll make multiple career changes over the course of their lives. Their success will depend on the ability to think integratively across knowledge domains, and to apply what they learn in the disciplines to issues of a much more general nature. The task force report[17] is very explicit about endorsing interdisciplinary teaching and learning as the best way to prepare students for these workplace changes and challenges, and also for the collaborative work (e.g., research and

[14] *Learning in the New Global Century*, 2007. Complete report is available at http://www.aacu.org/leap/documents/GlobalCentury_final.pdf
[15] *Taking Responsibility for the Quality of the Baccalaureate Degree*, 2004. Complete report is available at http://www.sonoma.edu/aa/assess_effectiveness/taking_responsibility_for_ug_degree.pdf
[16] *Toward Intentionality and Integration*, Fall 2008. Available at http://www.aacu.org/peerreview/index.cfm.
[17] Environmental Scanning Task Force 2007 *Reputation and Quality: Distinctiveness and Competitive Advantage*. Draft report prepared for the University Planning Advisory Council, http://www.du.edu/upac/charge.html.

teaching teams that crosscut established disciplines) that is beginning to drive intellectual life. The implications of the environmental scanning research for Gen Ed are that we provide as many opportunities and contexts for interdisciplinary and applied work as possible.

- The nature of General Education programs at institutions that have an urban context and/or public good mission. Top urban universities that overlap with DU in character and/or mission, and that we often include in our peer group, have significant investments in interdisciplinary and integrative Gen Ed programs. These include Portland State University[18], the University of Southern California[19], Southern Methodist University[20], and Temple University[21]. The Environmental Scanning report points out that DU's own commitment to serving the public good in future years will require (1) "a greater focus on interdisciplinary research and teaching collaboration", (2) an ability to "think more innovatively about the ways in which various disciplines interact" and (3) a commitment to "creating new knowledge beyond traditional disciplinary boundaries and methodologies."

- Student evaluation (satisfaction) data. The comparatives for all University Requirements courses posted on WebCentral indicate that current Core courses are consistently rated higher—sometimes significantly so—than Divisional Foundations courses.[22] This goes for all evaluation categories, including the "challenging course" category. It is clear that we have considerable, leveragable strengths in teaching interdisciplinary courses at DU. These data also suggest that Core is the wrong target for those hoping to find insoluble problems in the current structure.

- Preliminary assessment data on the success of the year-long NATS Foundations sequence. An admirable effort in NSM to assess Foundations courses for the 2006-07 academic year concluded, on the basis of pooled data from all courses, that there was no overall change in student performance from fall to spring. Student performance was highly variable among courses on both the assessment pre-test and post-test. For students who completed a single three course sequence the test-score gains were modest. Although the commitment of NATS instructors to creating a uniform assessment process was uneven, the results seem to indicate that the year-long courses may not be accomplishing their intended goals. It seems likely that a point of diminishing returns is reached after two quarters. The continuity and coherence of the NATS curriculum is also compromised by the increasing numbers of students who move between courses during the year because of scheduling conflicts.[23]

  An independent effort to assess the understanding of basic scientific concepts that students bring from NATS Foundations into the Core Curriculum was made in Winter

[18] http://www.pdx.edu/unst/about.html
[19] http://www.usc.edu/dept/publications/cat2008/schools/college/gen_ed.html
[20] http://smu.edu/gened/default.asp
[21] http://www.temple.edu/provost/gened/
[22] *Faculty Forum*, http://130.253.4.214/index.php/2008/04/29/dont-mess-with-core/; http://130.253.4.214/index.php/2007/02/20/core-revisited-2/ (on campus access; VPN from off-campus).
[23] NSM Faculty Meeting minutes, 29 April 2008. Available at https://portfolio.du.edu/pc/port2?page=3&uid=4365.

2009. Pre-testing in a Core course integrating biological and social science produced an average grade of "F" (57%; n=26 students).[24] Just about all of the test-takers were graduates of a NATS Foundations sequence, including 8 of the 9 available courses. Patterns in the pre-test data suggest that the results of this assessment exercise are consistent with widely-reported observations about the public understanding of science generally (e.g., poor understanding of the nature of scientific knowledge, the meaning of "theory" in science, and the substance of key concepts like evolution).

- The literature on General Education and Gen Ed for non-science majors. There is now a sizeable literature on interdisciplinarity's importance to the General Education curriculum and how it can work, and be assessed, in practice.[25] There is also a sizeable literature suggesting that (1) the traditional year-long science course for non-majors that deals in the technical aspects of science is no surer a road to scientific literacy than other pedagogical models that might be contemplated[26] and (2) learning "about" science can be just as effective a method for producing literacy as learning "in" science. The Foundations/Conversancies model preserves a year of science experience for non-majors, and allows a judicious combination of the two methods.

- Distinctiveness, Intelligibility, and Marketability: Google searches for "core conversancies" and "general education conversancies" did not reveal any college or university curricula that use this concept as an organizing framework, although several General Education Review Committees have engaged Weingartner's work. The Foundations/Conversancies model is not only well-justified on intellectual grounds but can be easily explained to parents and students. The narrative explaining and justifying this alternative model might look something like the following. This narrative also serves as a "teaching moment" in that it communicates something about the history of the American university:

  "Here at DU we start by introducing your son/daughter, in a small seminar, to the nature of the university as a community of scholars and learners. At the same time we ask him/her to take several courses that build competencies in writing, numeracy, and a language other than English. In their first two years we honor the 19th century origins of the modern university by introducing your student to the varied subject matters and multiple ways of knowing that distinguish the three great domains of human knowledge: Arts and Humanities, Natural Sciences, and Social Sciences. Your son/daughter can go to other universities and get all sorts of complicated schemes (or, no schemes at all) for organizing a Core Curriculum, like the ones they use at Brown, Princeton, and Duke. However, here at DU we use the one, and arguably only, scheme that comes closest to "carving knowledge at its joints." We're certain that the Core Foundations courses your son/daughter takes in each great domain of knowledge will ignite or renew their passion for a specific field of professional endeavor."

[24] https://portfolio.du.edu/pc/port.detail?id=128945.
[25] Rhoten, D., V. Mansilla, M. Chun, and J. Klein 2006 Interdisciplinary Education at Liberal Arts Institutions. Teagle Foundation White Paper available at http://www.teagle.org/learning/pdf/2006_ssrc_whitepaper.pdf.
[26] Norris, S. and L. Phillips 2003 How Literacy in Its Fundamental Sense is Central to Scientific Literacy. *Science Education* 87 (2).

"As your son/daughter is cultivating their professional expertise and maturing intellectually we re-acquaint him/her—as a junior and senior, and in a way that's unique to DU—with the original Enlightenment Quest to unify knowledge. We do this by asking all students to take a set of advanced seminars: three interdisciplinary, thematic Core Conversancies courses focused on timely, compelling challenges of 21st century life (e.g., sustainability, biotechnology, globalization, interculturalism). Our goal is to provide context and opportunity for your student to compare and integrate what she/he is learning in their major with what their peers majoring in other disciplines at the university are learning. These courses test your student's ability to synthesize different ideas about how the world works and contribute to broader conversations about complex issues and problems. They invite your student to, in the words of our university's Learning Goal, "imagine new possibilities for themselves, their communities, and the world." Our intention is to push your son/daughter to critically reflect on the virtues and limitations of their chosen field of specialization, and prepare them to adjust to rapid and unpredictable change in the world of work, and the world of ideas. Thus, the required Core Curriculum at DU aims to extend and enrich your student's development as both a professional and as a citizen."

III. Summary

This proposal for General Education reform is based on the letter and the spirit of the university Learning Goal ratified in 2007. It acknowledges our governing statements of Vision, Values, Mission, and Goals. It respects the work and wisdom of the faculty, staff, administrators, and trustees who were involved in the process that produced the new VVMG statements. It considers the successes and limitations of the current curriculum, national patterns and trends in curriculum development, the professional literature on General Education reform, and changing expectations for success in the American workplace. It dovetails with AACU and other Higher Ed association recommendations for liberal learning in the new millennium. It honors the excellent contributions that current Core faculty have made to General Education at DU. It has the potential of giving our General Education program a distinctive institutional identity.

The Foundations/Conversancies curriculum proposed here will require a bit more attention than what has been given to the current program. The "official" History of Core[27] notes that the current curriculum was compromised by a number of factors including: (1) "public relations" problems produced by the original Core course approval process (which has surely left a bad taste for some faculty); (2) the admitted inability of the Faculty Core Committee to achieve a shared, campus-wide understanding of interdisciplinarity; (3) structural problems with involving faculty from the professional schools; and (4) the failure of a proposed-but-never-convened "Administrative Group" to surmount the structural problems of (3) in a way that would support and evolve the curriculum. To these impediments we might add the recent spate of uninformed and reckless opinionating about Core "not working." That the current Core is succeeding in its aims despite these obstacles is strong testimony to the power of the original vision and the quality and dedication of the faculty teaching in the curriculum.

[27] Available at http://portfolio.du.edu/gen_ed. Log in to Portfolio Community required.

It has recently been argued that faculty are both attracted to interdisciplinarity and repelled by it.[28] We're attracted because most people in the world, including those targeted by our Public Good vision, live their lives as interdisciplinarians. They're routinely compelled to navigate market vagaries, negotiate cultural differences, and struggle with competing interests and exogenous coercions. Occasionally they're forced to risk everything by thinking and experimenting outside the box. We're repelled by interdisciplinarity precisely because it takes us outside the box. It threatens the system of credentialing that gives us our professional identities and the disciplinary homes within which we safely reside. Interdisciplinary anxiety at DU is evidenced by the turbulent history of our Core Curriculum, by some notable turf battles over proposed "Studies" programs, and by much direct observation. Yet the worlds of work and academic life are changing in ways that require our students to have increasingly sophisticated integrative and creative abilities. Given these changes, interdisciplinary General Education is something to nurture and develop, not downsize or marginalize.

The University of Denver was a national leader of General Education reform in the 1980s. Today, we're not only proposing to shrink and possibly eliminate that which is thriving and expanding elsewhere, but we're very close to repudiating our own nationally-significant achievements. We should find the resolve and the resources to continue to evolve interdisciplinary and transdisciplinary education at DU.

Comments to: Dean Saitta, Department of Anthropology, dsaitta@du.edu, x12680.

[28] Menand, L. 2008 Interdisciplinarity and Anxiety. Available at http://humanities.princeton.edu/fds/MenandInterdisciplinarity.pdf

Proposal for a Renewed
UNIVERSITY CORE CURRICULUM

CORE FOUNDATIONS
(First and Second Years)

First Year Seminar □	Writing and Rhetoric □□	Language □□□	Mathematics □
Arts and Humanities □□	Natural Sciences □□ ↓ ↓ ↓	Social Sciences □□	

CORE CONVERSANCIES
(Junior and Senior Years)

Writing Intensive Seminar □	↓ ↓ Science Seminar □	Seminar □ (May be satisfied with a Study Abroad course)