Background for Guiding Principle 2: Achieve Curricular Coherence.

In 2025, Penn State will embrace a commitment to design degree, minor, and certificate programs that provide students with access and clearly articulated pathways through the curriculum, built through thoughtful approaches to course coherence. Strong disciplinary and interdisciplinary communities and multiple and flexible models of course taking will form the basis of this transformation.

Summary:

There are many scholarly articles (and many proposed models) on how to achieve curricular coherence. Such works should be investigated by the relevant subcommittees and perhaps a few might be promoted as samples for implementation by departments when reviewing their curriculum in terms of its coherence. What follows below are articles arguing the necessity of curricular coherence at an institutional level and some examples of universities who have undertaken curricular coherence as an institutional priority.

In “A Call for Curricular Coherence,” an essay published from Inside Higher Ed, the author argues that the unchecked proliferation of courses without any thought to how those courses fit within a broader scheme can make a college education seem like a box-checking exercise rather than a cohesive and comprehensive intellectual endeavor. The author also points out that:

- Students typically do not consider how degree requirements are organized, whether their general education or major courses are intellectually interrelated, how to choose wisely when presented with scores of course options and whether their courses will be scheduled so they can graduate on time.

- Proliferating course offerings can overwhelm and confuse students, simultaneously leading to both under-enrolled courses and oversubscribed courses.

- Faculty members are the masters of the curriculum but are neither incentivized nor penalized for attending to the coherence of their curriculum as a whole. They tend to think about their responsibility over individual courses rather than how those courses contribute to students’ holistic learning as they move through their programs of study.

- Faculty-led curriculum committees that are charged with approving new courses and programs may be empowered to make unpopular decisions but still typically default to approving additions without mandating subtractions to the curriculum.

- Without a shared vision for a unified and streamlined curriculum (planned collectively at the department level and then coordinated cross-departmentally) even modest efforts at promoting more integrative learning get bogged down in what ought to be easily resolvable issues like academic scheduling.

The article above specifically mentions a report by the Teagle Foundation entitled, “In Search of Curricular Coherence.” In Fall 2013, The Teagle Foundation issued an RFP inviting selected institutions and organizations to apply for grants that addressed the following question: “How can faculty work together to create a more coherent and intentional curriculum whose goals, pathways, and outcomes are clear to students and other constituencies with a stake in the future of higher education?” The grant initiative sought to “support campus initiatives that delve deep into the structure of the curriculum and make transparent to students what they can expect to learn and how the curriculum’s architecture delivers this learning.” A total of 15 grants were awarded and this report was the early evaluation of four grants involving 12 institutions.

Lessons learned include:

• Shared recognition of the existence of a problem and agreement on its nature constituted a crucial first step in the reform process, generally accomplished through faculty retreats, workshops, and abundant conversations.

• Most institutions chose to start their reform initiative by inviting willing faculty members to participate, expanding the group of participants as the effort progressed and successes became visible. Some institutions developed mini-grant programs to departments or groups of faculty to incentivize their participation.

• Some good ideas fail because of processes, policies, and decision-making structures that get in the way. Identifying these barriers and taking steps to address them were key to several institutions’ ability to move forward with their initiatives.

• The participating institutions used various strategies to address the obstacles to collaboration, including creating a shared vision for the work, harnessing the energy of faculty champions, identifying skillful project leadership, bringing in external voices, and supporting institutional leaders.

• Institutions prize their differences, as do schools and departments within those institutions. Project institutions took care to identify shared goals and desired outcomes but at the same time gave units and departments the freedom to create their own paths to achieving them.

Executive Summary:

(\url{http://www.teaglefoundation.org/Impacts-Outcomes/Evaluator/Reports/In-Search-of-Curricular-Coherence-(2018)})

Full Report:

The article “Purposeful Pathways: Faculty Planning for Curricular Coherence” in the AAC&U publication details the results of a project launched by the AAC&U in 2016 to help faculty create and assess curricular pathways that can guide students to higher levels of learning, intellectual skills development, and practical knowledge. The project launched with four public institutions: Community College of Philadelphia; University of Houston–Downtown; University of Nevada, Las Vegas; and Winston-Salem State University with the goal to create “…a set of well-planned learning experiences that occur in the appropriate sequence so that the learning in the later parts of the sequence builds on the learning in the beginning parts of the sequence.” Insights resulting from the project include:

- While creating clearly defined pathways within disciplines was relatively straightforward, connecting general education requirements to those learner pathways proved challenging. One solution was to identify how courses and pathways scaffold the outcomes and skills students achieve through general education and to bring more faculty and students into conversations about general education to ensure students see the value of general education and “understand why they’re taking the courses they’re taking.”

- The UNLV Purposeful Pathways project team is working to alleviate barriers to student success that include overwhelming course catalogues and required ‘bottleneck courses,’ which have resulted in low student grades and high withdrawal rates in some programs. Although UNLV faculty had made “piecemeal” changes to their programs over the years in response to specific challenges, many academic departments had not had the time for a really meaningful review of their curriculum.

- Each academic department is unique in terms of the kinds of issues they identified, the solutions that they proposed to address those issues, and the kinds of changes that they ended up making to their curriculum. Some departments streamlined course offerings by removing redundant or rarely-offered courses, while other departments examined and mapped their learning outcomes, developed new classes, reordered prerequisites for existing classes, and/or consolidated multiple courses into a single course to achieve these outcomes as efficiently as possible.

- Programs must constantly be aware of “curriculum creep,” resulting in bloated majors and an academic catalogue that was hard to navigate for both students and advisors. Project teams helped departments analyze outcomes and required courses to see how degrees could become more efficient. They asked faculty, “What is fundamental to your major? What do students have to understand first before they can understand the next thing? What faculty expertise does your department have that can provide depth? Where can you give students some flexibility?”

- Curricular alignment exercises nearly always result in lower student frustration, more efficient of faculty teaching loads, increased graduation rates, and lower time-to-graduation metrics.

Faculty Role in Curricular Change

In the book, Making Sense of the College Curriculum: Faculty Stories of Change, Conflict, and Accommodation (Rutgers University Press, 2018), the authors compiled in-depth interviews with 185 faculty members from 11 colleges and universities, representing all sectors of higher education. The authors identify trends that cross sectors, in particular the care with which professors consider the goals
of various programs and requirements. While the book makes clear that change in the curriculum is rarely speedy, and sometimes messy, it finds that under certain conditions, faculty do agree to make meaningful changes. The following are some salient points from a published interview with the authors:

- The authors initially set out to document what worked as colleges and universities sought to revise their curricula. However, they were quick to discover there had not been enough successful curricular redesigns to produce an informative study.

- Instead, they began to examine the question, “Why had there been so little curricular change?” in the last few decades.

- A recurring sentiment was that the faculty role has come to encompass a growing number of responsibilities. For example, it was not uncommon for some faculty to describe their role in terms that combined academic preparation with social development of students.

- Faculty from institutions that prepare students to enter specific careers upon graduation often spoke of the constraints of external accreditation or certification requirements.

- Almost always the motivation to change stemmed from dissatisfaction with the supply of courses. Changes in the discipline, faculty interests or student demand would spur a drive to create new courses within a department. Alternatively, a decline in enrollment in existing courses that represent the specialties of tenured professors would spur strategies to change graduation requirements for majoring in a given department or otherwise highlight underenrolled courses to attract greater student interest.

- A fundamental desire within academic units was to preserve the core elements that define a field of study. Those elements often coincided with the expertise of tenured faculty members, and there was always an awareness that recasting the curriculum can impact the jobs of real people (emphasis added). Beneath every proposed change are the self-interests of departments or individual faculty who have benefited from the curriculum as currently delivered.

- Perhaps most telling, it most often fell to administrators (rather than the faculty) to deliver the message that the curriculum needed to change -- for reasons of efficiency, intellectual integrity -- and often to heighten their institution's competitive standing among prospective students and their parents.

- The lesson the authors hope to drive home to senior administrators and faculty leaders is that they bear a special responsibility for spurring curricular change, all while making certain that curricular redesign is in fact the work of the faculty. Success needs to celebrated, faculty champions should be recognized and faculty initiative rewarded.


Focusing on a Core Competency Model

In an online essay, *Core Competencies Promote Coherence in the General Education Curriculum*, Gregory Linton (Vice Provost for Academic Services, Johnson University) discusses the importance of providing core competencies as a basis on which to build curriculum. This idea is not new but may provide a way forward for any large curricular realignment initiative.

Dr. Linton states that:

- When faculty members examine their curriculum, they often think primarily in terms of what students should *know* rather than what students should be *able to do* by the time they graduate. Consequently, they design the general education portion of the curriculum as a distribution (or perhaps even a hodgepodge) of subjects that covers the essential fields of human knowledge. But how those subjects interrelate and build on one another may not be clear to either faculty members or students.

- A major concern about general education among educational theorists is that the courses are fragmented and unrelated to one another. Many colleges and universities respond by tightening the course requirements. The result is a more restricted core curriculum that forces students to be exposed to subjects that they might otherwise avoid if given the choice. Nevertheless, even a narrowly restricted core curriculum can appear incoherent to students who fail to see what Algebra has to do with World Literature.

- A better approach would be to undertake an intentional, strategic process of identifying, defining, and assessing the core competencies that students should acquire during their course of study. These competencies are not subject-specific or discipline-specific; rather, they are the central qualities that are necessary for students to utilize effectively the knowledge that they have gained in each subject area.

- For most colleges, the general education courses lay the foundation for the core competencies. The advanced courses in general education and the professional courses build on this foundation by extending and reinforcing the core competencies. In this way, the core competencies serve as threads that run through all parts of the curriculum, tying it together as a coherent whole.


In *College Learning for the New Global Century*, a report by the National Leadership Council for LEAP and the AAC&U, the aims and outcomes of a twenty-first-century college education are explored alongside a survey from over 300 mid- to large employers of college graduates. Some highlights are as follows:

- The LEAP National Leadership Council recommends, in sum, an education that intentionally fosters, across multiple fields of study, wide-ranging knowledge of science, cultures, and society; high-level intellectual and practical skills; an active commitment to personal and social responsibility; and the demonstrated ability to apply learning to complex problems and challenges.
• The council further calls on educators to help students become “intentional learners” who focus, across ascending levels of study and diverse academic programs, on achieving the essential learning outcomes.

• The employer surveys and focus groups reveal strong support among employers for an increased emphasis on providing all students “essential learning outcomes” similar to those mentioned above. Employers reject any trend toward narrow technical training at the college level; instead, they believe that, to succeed in the global economy, students need more liberal education, not less.

• Fully 63 percent of employers believe that too many recent college graduates do not have the skills they need to succeed in the global economy. Employers recognize the importance of higher education, but they see significant room for improvement in graduates’ levels of preparation.

• A majority of employers believe that only half or fewer recent graduates have the skills and knowledge needed to advance or be promoted in their companies.

• In none of twelve skills and areas of knowledge tested—from writing to global knowledge to ethical judgment—do a majority of employers rate recent graduates as “very well prepared.” Only eighteen percent of employers rate college graduates as “very well prepared” in the area of global knowledge. More than 45 percent rate them as “not well prepared” at all in this area.

• Fifty-six percent of employers think colleges and universities should focus on providing all students with both a well-rounded education—broad knowledge and skills that apply to a variety of fields—and knowledge and skills in a specific field (as opposed to broad knowledge only, or specific knowledge only approaches).

• The majority of employers surveyed think colleges and universities should also place more emphasis on helping students develop the ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences. Several focus group participants were especially critical of colleges and universities for providing an education that is too theoretical and disconnected from the real world.

• In 2009 the survey was repeated in the face of the economic downturn. Again employers urged universities to examine their curriculums in the face of increased challenges in a face-paced, evolving work environment. Among the top skills requested by employers: the ability to effectively communicate orally and in writing (89%); critical thinking and analytical reasoning skills (81%); the ability to apply knowledge and skills to real-world settings through internships or other hands-on experiences (79%); the ability to analyze and solve complex problems (75%); and the ability to connect choices and actions to ethical decisions.

(https://secure.aacu.org/AACU/PDF/GlobalCentury_ExecSum_3.pdf)