The Way Higher Education Should Be

The state of Maine prints on some of its license plates a compelling epigraph: "The Way Life Should Be." But just as, even in Maine, life may sometimes fall short of the way it "should be," most college students' experiences of higher education currently fall far short of what they "should be." At present, most students in most institutions of higher learning experience general education programs ill-designed to accomplish their stated purposes and ill-suited to ensure the wide range of learning outcomes that define degrees. Programs in disciplines (i.e., majors) are often complicit. If they fail to foster the learning and skills students achieve through general education, they may undermine what general education should accomplish.

> *Throughout higher education, students should approach their college experiences with an informed understanding of the outcomes they should expect to achieve and of the ways in which the undergraduate curriculum—general education in concert with study in one or more major fields—will enable them to achieve those outcomes.*

This imperfect reality invites imagination of the way things should be. Throughout higher education, students should approach their college experiences with an informed understanding of the outcomes they should expect to achieve and of the ways in which the undergraduate curriculum—general education in concert with study in one or more major fields—will enable them to achieve those outcomes. Regardless of their family incomes, their personal backgrounds, or their institutions of choice, students should find at every stage of their college careers both ample and all-inclusive support and a commitment to intentionality: the alignment of creative, pragmatic educational paths leading through progressively more challenging study in the humanities, social sciences, arts, and sciences to clearly defined ends. These paths should lead students to graduate on time—confident in the value of their degrees, in the proficiencies they have developed, in their preparedness to contribute to the public interest and to economic competiveness, and in their potential for further learning.

Closing the gap between the way things are and the way things should be is the goal of the Association of American Colleges and Universities' (AAC&U's) General Education Maps and Markers (GEMs) project. Building on a growing national consensus about the Essential Learning Outcomes that all students should achieve in college (National Leadership Council for Liberal Education and America's Promise 2007), as well as on agreement about what it should mean to hold a college degree as described in Lumina Foundation's Degree Qualifications Profile (DQP) (Adelman et al. 2014), the GEMs project envisions a compelling standard for student learning.

Consider the examples of two hypothetical students, Juan and Pat, on pages 2 and 3:

Considering College

As a prospective college entrant, Juan visits the website of Northeast Midwestern State University (NMSU). There NMSU has defined in practical and measurable terms (1) its institutional baccalaureate outcomes and (2) the contribution its general education program makes to the accomplishment of these outcomes. These straightforward statements show clearly how an NMSU education reflects the broad national consensus on degree-level outcomes expressed by the DQP, as well as the principles embodied in the GEMs project. The website also describes the ways in which an NMSU education is distinctive from that offered at other institutions.

An apparent congruence between the university's educational programs and Juan's priorities prompts him to begin the application process. First, Juan completes an online questionnaire that will generate a map plotting his preparation and interests against the university's general education and major programs. In response to this questionnaire, Juan receives documentation of several alternate curricular pathways. Some of these pathways align suggested general education coursework with likely majors, while others presume a major to be named later. Each pathway includes explicitly identified opportunities for Juan to engage in active learning (including through Signature Work that addresses complex problems important to the student and to society), to demonstrate academic proficiencies aligned with those of the DQP, and to participate in complementary cocurricular activities.

Thus even before admission, Juan has access to personalized overviews of several trajectories he might follow in his undergraduate experience, all organized according to student learning priorities. With these overviews, Juan can look forward to a curriculum that will build on his strengths and stimulate his curiosity. Now understanding the advantages to be found at NMSU, Juan completes the application process.

Admission

Juan receives his long-awaited admission letter from NMSU. Within forty-eight hours, he receives both a telephone call and an e-mail communication from an advisor who will offer guidance throughout Juan's career at NMSU. Stressing the importance of frequent consultation, the advisor schedules Juan's first one-on-one appointment prior to the beginning of the fall semester. At the same time, the advisor introduces Juan to an interactive digital planner that incorporates the curricular and cocurricular pathways projected earlier. Juan chooses a provisional curriculum and cocurriculum that will help him develop proficiencies in areas keyed to his interests and at levels of challenge appropriate to his preparedness. Both Juan's dedicated advisor and faculty advisors in his possible areas of specialization review the curriculum he has chosen and recommend modifications.

Transferring From One Institution to Another

Juan is highly successful—so successful that at the beginning of the second semester of his second year, he decides to transfer to Flagship University, where the educational program also embodies GEMs principles, in order to continue study toward a bachelor's degree and a master's degree in accounting. Juan's electronic portfolio documents (1) proficiencies achieved and demonstrated through Signature Work developed in connection with general education courses offering increasing levels of challenge and (2) accomplishments through the NMSU cocurriculum that complement his academic work. Working with this portfolio, an advisor in the College of Business (COB) at Flagship is able to compare Juan's preparation to date with the expectations of the Flagship COB and to recommend any necessary modifications in the pathway Juan is pursuing. At Flagship, just as at NMSU, Juan's pathway will align a four-year, interdisciplinary general education curriculum with the major curriculum and cocurriculum. The liberal learning proficiencies Juan develops through general education are strengthened through progressively more challenging learning in the major and cocurriculum.

Anticipating Graduation

Anticipating graduation at the conclusion of his fourth year—with acceptance to the Flagship master's program in accounting already assured—Juan participates in a multidisciplinary general education capstone experience. Through this capstone program, Juan integrates proficiencies gained through multiple disciplines while demonstrating the institutional baccalaureate proficiencies that have defined his pathway. Juan's electronic portfolio clearly and substantively documents his accomplishment of the DQP proficiencies that Flagship has designated as requisite for the baccalaureate degree. Because of Flagship's strategic integration of general education and the major, Juan's undergraduate career has prepared him for graduate study leading to the master's degree in accounting and to success as a Certified Public Accountant. No less important, Juan's general education has opened a pathway to a lifetime of continuing education, civic responsibility, cultural awareness, and ethical reasoning.

PAT
A motivated, employed, returning adult student

Admission

Three weeks after submitting her application to NMSU, Pat receives a call from an advisor in the Experienced Learner program and agrees to an interview on Skype. During this interview, the advisor describes various methods through which a returning student can propose relevant work experience for possible college credit. The NMSU advisor also recommends that Pat consider retaking some general education courses focused on essential writing and computational skills that Pat has not practiced regularly since her year at WCCC.

Pat and her advisor schedule an on-campus day during which she will (1) create the template for an electronic portfolio, (2) use this portfolio to seek six hours of credit by documenting her work experience in the context of the DQP, and (3) make curricular choices both for the semester just ahead and for the full span of her college career. Following assessment of her application, Pat receives the credit for which she had applied. Pat also discusses with her advisor the gaps in her proficiencies that NMSU's focused and coherent approach to general education will remedy. Pat then chooses a curriculum consonant with her record to date. Both Pat's dedicated advisor and faculty advisors in her intended area of specialization review the curriculum she has chosen and make recommendations.

Considering Returning to College

At age eighteen, Pat began study toward an associate's degree in information technology at Warm Creek Community College (WCCC). However, finding the discipline unappealing, she dropped out after two semesters. Marriage and children prompted her to defer further formal education in favor of an interesting marketing position for a regional distributor. At age twenty-eight, having gained considerable practical experience in marketing, Pat decides to pursue additional formal education. This time, she will seek a baccalaureate in marketing—eventually, perhaps even an MBA. She sees a billboard for Northeast Midwestern State University that advertises NMSU's "welcome mat" for "experienced learners" and promotes "liberal education you can use to get ahead." Those are just the prompts she needs to pique her interest.

Pat visits the NMSU website and notes the institution's commitment to intentionality across general education and the major. The website enables her to grasp both the university's baccalaureate outcomes (keyed to the DQP) and the alignment of its general education curriculum with these outcomes. She realizes that she may need to make up some ground through general education courses that will address gaps in her preparation, but she can infer as well how her earlier study and employment experience may qualify for academic credit.

Pat decides to apply. As part of the application process, she completes a questionnaire that records her current academic priorities and compares her educational experience with outcomes defined by the DQP. She receives in response (1) a tentative assessment of the general education proficiencies she may be able to demonstrate and the gaps she will probably need to address, (2) a curricular plan linking her remaining general education objectives with study in her intended major, and (3) an estimate of time to degree and total costs.

Anticipating Graduation

In contrast with her first experience in higher education, Pat finds at NMSU a logic and an intentionality that her experience enables her to appreciate. With the guidance of the DQP, she has succeeded in pursuing a curriculum with clearly stated objectives at every level—the classroom, the program, and the degree—and has been able to understand the value of all that she has accomplished. Because NMSU wants all its students to benefit from the clarity and practicality of its educational vision, transfer students like Pat participate in a multidisciplinary general education capstone experience with students who began their higher education careers at NMSU. There each student integrates proficiencies gained through multiple disciplines while demonstrating the baccalaureate-level outcomes that have been defined by the institution. By integrating general education, the major, and the cocurriculum, Pat's undergraduate career has prepared her for admission to an MBA program. Although Pat chooses to defer this next step, NMSU has also prepared her for a lifetime of education, civic responsibility, cultural awareness, and ethical reasoning.

No two examples, however carefully framed, can describe fully the complex realities of higher education. For one thing, these examples describe students pursuing preprofessional and professional programs. Many students no less focused than these two pursue liberal arts disciplines in order to achieve the broad acumen and flexibility that can lead to success in a volatile employment environment.

For another, both of the scenarios above describe students who are highly motivated and largely self-directed, while many students are neither. The academy must accommodate, challenge, and support such students as well. Indeed, one measure of the academy's commitment to equity will be found in its efforts to attend to the needs of students who require extra guidance and support to make the most of their college studies. As *General Education Maps and Markers* says, we must "meet students where they are" (AAC&U 2015a, 19).

Finally, while the examples here describe linear, cumulative educational processes, many students experience a far different reality: they may begin with a clear priority, proceed for a time but then change their major, discover an incompatibility, change or even reverse course, circle back to satisfy missed requirements, and so create a winding pathway.

Nevertheless, the reforms implied in the two examples above are meant to address the needs of all students, notwithstanding the unprecedented range in students' preparedness, intent, and experiences. Indeed, the implied reforms would offer much needed additional support *especially* to students who are uncertain of their course and to those who may "swirl" their way through the curriculum. These reforms are not directed at Juan and Pat alone; instead, they would enable every student—regardless of race, gender, age, geography, or socioeconomic background—to become better informed, experience enhanced support, aspire to higher educational goals, and find more efficient pathways toward realizing their ambitions.

In Brief: Reality and Reform

If the experiences of Juan and Pat exemplify "The Way Academe Should Be," their pathways are still far different from those most students experience as they pursue their undergraduate degrees. As the authors of *General Education Maps and Markers* observe, there is far too often a "haphazard character" to the general education many students undertake (AAC&U 2015a, 6)—and, for that matter, to their entire undergraduate careers. The result? "Too few students are leaving colleges and universities with the skills, knowledge, and dispositions that prepare them for work, life, and responsible citizenship" (5).

That is the bad news, succinctly stated. But there is also much good news. Those who believe that higher education can and should become more effective have some reasons for optimism. I outline these reasons below:

We have documented the dilemma.

First, it is now widely recognized that far too many college students fail to earn a degree. In their 2011 report for the Harvard Graduate School of Education, *Pathways to Prosperity*, William Symonds and colleagues observe, "'College for all' might be the mantra, but the hard reality is that fewer than one in three young people achieve the

DEFINING LIBERAL EDUCATION AND GENERAL EDUCATION

Liberal Education: A course of study designed to prepare students for complexity, diversity, and change. Best accomplished through the alignment of both broad or general education and a major or specialization, a liberal education helps students develop broad knowledge of science, cultures, history, and society, as well as knowledge and skills important in their chosen specializations. Liberal education also emphasizes the development of proficiencies that span all fields of study, including social and ethical responsibility, strong intellectual and practical skills (e.g., critical thinking, evidence-based reasoning, communication, and problem solving), as well as the demonstrated ability to apply knowledge and skills to complex problems and real-world settings.

General Education: Refers to the part of a liberal education shared by all students. Typically grounded in the humanities, sciences, social sciences, and arts, general education provides a platform for fostering proficiencies that span all fields of study (e.g., social and ethical responsibility, critical thinking, evidence-based reasoning, communication, and problem solving) while also providing opportunities for hands-on experience with complex questions and problems. By facilitating students' exploration of issues and questions that bridge multiple fields of study, general education helps students build the broad and integrative knowledge they need for careers, while also preparing them directly for questions and issues they will confront as citizens in a globally engaged democracy.

dream" (Symonds, Schwartz, and Ferguson 2011, 9). Citing data from the Organisation for Economic Cooperation and Development, the report's authors starkly declare, "the United States now has the highest college dropout rate in the industrialized world" (10). Moreover, too many of those who do not persist in college come from communities underrepresented in higher education. The harsh reality is that "racial or ethnic minority students have a higher probability of leaving post-secondary education than ethnic majority students" (Carter 2006, 33).

Second, it is widely known that those who do graduate may take far too long to do so. The six-year graduation rate for students seeking a bachelor's degree (59 percent in 2012) has become effectively the default statistic for measuring institutional performance (USDE 2014). And those who graduate may discover that preparation sufficient to meet entry-level requirements for employment may prove inadequate to support their advancement (Hart Research Associates 2013, 2).

We know a key source of the dilemma.

Too many students experience general education not as a conspicuously useful and meaningful component of a coherent baccalaureate education, but as a curricular impediment that they must "get out of the way" prior to study in a major. If they hear this message from their advisors, they may be unable to visualize a meaningful trajectory in their curriculum, with an attendant loss of motivation and commitment to persist. In sum, students deprived of a general education that is transparently purposeful, substantive, clearly aligned with their personal goals, and expressive of explicitly defined institutional learning goals are far less likely to remain motivated, to strive for excellence, and to make a compelling case for themselves to potential employers.

> *If general education and liberal learning outcomes are stated explicitly, students should work with greater motivation and a stronger sense of commitment.*

We are committed to a solution that is equitable for all students.

Cornerstones of Completion (a 2012 report by Lara K. Couturier on the Completion by Design project sponsored by the Bill & Melinda Gates Foundation) suggests a strong link between well-designed curricular pathways on the one hand and persistence to completion on the other (22). The report cites in particular a study by Melinda Mechur Karp (2011) that advocates "activities that clarify student aspirations and develop college know-how." These activities "make student success more likely," Karp concludes. While she focuses on "non-academic" activities, the principle she asserts could not be more germane to general education: college awareness leads to clearer aspirations that lead to increased persistence.

It should not be surprising that rigorous, authentic liberal education for all college students would encourage greater persistence among all students seeking degrees. It may be simplistic to observe that those who have a clear sense of why they are doing what they are doing perform more effectively. But the corollary is compelling: if general education and liberal learning outcomes are stated explicitly, students should work with greater motivation and a stronger sense of commitment. In turn, graduates should gain greater confidence in the proficiencies they have developed, in the value of their degrees, in their preparedness to contribute to society, and in their readiness for further learning.

We know how to create a solution that can be implemented "at scale."

The single most direct and effective approach to improving the educational experience for all students is the redesign of general education as a platform for integrative, digitally rich, proficiency-based, and question-centered learning grounded in the humanities, arts, sciences, and social sciences. Rather than

a buffet of survey courses to be "gotten out of the way," general education must become the integrative center for the most important learning outcomes—from the first year until the degree.

We know what is required to implement the solution.

We must affirm consensus about what degrees mean irrespective of discipline; frame curricula that lead, through general education and the major, to students' accomplishment of clear learning outcomes; insist on and support high-impact practices, including students' own Signature Work (AAC&U 2015b); direct, appropriately and strategically, the resources of the digital universe; provide ample assistance to faculty; and assess student accomplishment to document success and prompt improvement.

We believe the academy is well prepared to undertake the solution.

AAC&U's thirty-year commitment to strengthening general education has resulted in the development of a solid platform for systemic and scalable reform. As described below (pages 18–20), with the publication of the Essential Learning Outcomes (ELOs) nearly a decade ago, AAC&U advanced a clear, widely shared, and eminently applicable consensus about what a liberal education should offer (National Leadership Council for Liberal Education and America's Promise 2007). A complementary AAC&U initiative, VALUE (Valid Assessment of Learning in Undergraduate Education), develops rubrics that enable institutions to measure and document student accomplishment relative to the ELOs. The Degree Qualifications Profile, published as a beta document in 2011 and formally released by Lumina Foundation in October 2014, complements the ELOs by specifying in concrete terms what degree recipients at the associate's, bachelor's, and master's levels should be able to do with their learning and how they should be able to demonstrate what they can do (Adelman et al. 2014; see figure 1). AAC&U's GEMs project directs these important efforts toward a genuinely transformative undertaking. By strengthening general education through curricula that are more efficient and more effective, GEMs seeks to inspire the renovation of undergraduate education so that all college students can earn meaningful degrees in a timely manner and can be better prepared to extend their studies, to pursue their careers, and to contribute to the public good.

DEFINING SIGNATURE WORK

In **Signature Work**, a student uses his or her cumulative learning to pursue a significant project related to a problem he or she defines. In the work conducted throughout at least one semester, the student takes the lead and produces work that expresses insights and learning gained from the inquiry and demonstrates the skills and knowledge she or he acquires. Faculty and mentors provide support and guidance.

Signature Work might be pursued in a capstone course or in research conducted across thematically linked courses, or in another field-based activity or internship. It might include practicums, community service, or other experiential learning. It always will include substantial writing, multiple kinds of reflection on learning, and visible results. Many students choose to use e-portfolios to display their Signature Work products and outcomes. (AAC&U 2015b)

FIGURE 1. The Degree Qualifications Profile

Degree Qualifications Profile Overview

A template of proficiencies required for the award of college degrees at the associate, bachelor's, and master's levels*

Knowledge

At each degree level, every college student should demonstrate proficiency in using both specialized knowledge from at least one field **and** broad, integrative knowledge from arts and sciences fields. **Both kinds of knowledge** should be pursued from first to final year, providing opportunities for **integration across fields and application to complex problems**—in the student's area of emphasis, in out-of-school settings, and in civil society.

BROAD AND INTEGRATIVE KNOWLEDGE

Key areas include the sciences, social sciences, humanities, arts, and global, intercultural, and democratic learning.

In **each area**, students:

- Learn key concepts and methods of inquiry
- Examine significant debates and questions
- Make evidence-based arguments

In **addition**, at each degree level, students:

- Produce work that integrates concepts and methods from at least two fields

SPECIALIZED KNOWLEDGE

Students demonstrate depth of knowledge in a field and produce field-appropriate applications drawing on both major field and, at the BA level and beyond, other fields. Students learn

- Discipline and field-specific knowledge
- Purposes, methods, and limitations of field
- Applied skills in field
- Integrative skills and methods that draw from multiple fields and disciplines

Intellectual Skills

Students hone and integrate intellectual skills across the curriculum, applying those skills both to complex challenges within major fields and to broad, integrative problem-solving challenges in general education and in civic, global, and applied learning. Skills include

- Analytic inquiry
- Use of information resources
- Engaging diverse perspectives
- Ethical reasoning
- Quantitative fluency
- Communication fluency

Civic and Global Learning

Students acquire knowledge required for responsible citizenship both from their formal studies (see knowledge and skills, above) and from community-based learning, and **demonstrate their ability to integrate both forms of learning in analyzing and addressing significant public problems and questions, in both civic and global contexts**. Civic learning may be demonstrated through research, collaborative projects, and/or field-based assignments.

Applied and Collaborative Learning

Students demonstrate their ability to **integrate and apply** their learning (see knowledge and skills, above) in complex projects and assignments, including collaborative efforts, that may include research, projects, practicums, internships, work assignments, performances, and creative tasks.

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*This chart summarizes Lumina Foundation's Degree Qualifications Profile, released in 2014. The new release is informed by feedback from faculty and leaders from hundreds of colleges, universities, and community colleges that worked with the "beta version" of the document, which was published in 2011. The full Degree Qualifications Profile is available for download at http://www.luminafoundation.org/resources/dqp.

Now, we affirm a strategy leading to the solution…

What is needed given the reality and the opportunity is a pathway defined by *clear maps and markers* that invite students, faculty members, and institutional administrators to develop a principled and practical understanding of the way forward. By aligning more clearly focused general education curricula with major programs more cognizant of and responsive to general education outcomes, higher education can ensure that students receive the benefits of a liberal education defined in terms of learning proficiencies and demonstrated accomplishments. The GEMs metaphor of "maps and markers" is apt: maps express thoughtful and pragmatic judgments about optimal routes toward clearly defined priorities, both for programs and for the students the programs serve. And markers enable those en route to affirm that they are on course and to measure their progress. With the engagement and commitment of faculty across the humanities, arts, social sciences, sciences, and professional disciplines, such pathways will lead to more compelling, more invigorating, and more effective undergraduate education.

…and express our resolve to pursue that solution with urgency…

No matter how well the case for liberal education has been made in the past, we must now reaffirm that case energetically, pragmatically, and inclusively—with special attention to the millions of students now being guided to narrow college programs that provide only a haphazard experience of general education. Again, the most efficient and effective approach to systemic higher education reform is through creating a more coherent and transparent general education curriculum, reinforcing the alignment between general education and the major, and improving and expanding the ways in which we communicate to students and the broader public the particular importance of general education in a dynamic global economy.

…as we seek nothing less than genuine transformation.

In short, we envision nothing less than the genuine transformation of general education, reflecting a sharp contrast between the present state (represented by the "From" column of figure 2 on page 9) and the desired state (represented by the "To" column). Such transformation necessarily must engage higher education at many levels: from the faculty, which has principal responsibility for curricular and course reform; to academic administrators, who must ensure that reforms are consistent by coordinating institution-wide efforts; to system leaders, who must make certain that benefits accruing to students in one institution accrue to students in all. The implications of such reform efforts are complex. As figure 2 indicates, effective reform will require the structure of general education to change, in part through far greater coordination with study in the major. Pedagogical emphases will shift from "what is taught" to "what is learned." Assumptions that we are serving traditional students in traditional institutions will give way to deeper understanding about the diversity of our students and of our colleges and universities. While necessarily economical in format, figure 2 is meant to convey the scope and intent of the project described in the following chapters—a realistic but ambitious approach to genuine reform.

> *We envision nothing less than the genuine transformation of general education.*

FIGURE 2. A Genuine Transformation*

DIMENSION	FROM	TO	ALLIES
Prioritizing quality learning	Faculty teaching	Student learning	*Faculty members, academic administrators*
Documenting achievement	Courses, credits, and transcript	Documented proficiencies demonstrated in e-portfolios	*Academic administrators, accrediting associations*
Building effective general education pathways	Distribution requirements in first two years	Four-year path integrated with major	*Faculty members, academic advisors, system leaders, transfer coordinators*
Focusing teaching strategies and improvements	Discrete courses, content "coverage" and comprehension	Students explore complex problems across multiple courses	*Faculty members, disciplinary associations, academic administrators*
Locating spheres of work	Single institution assumed	Often multiple institutions	*Academic administrators, accrediting associations, system leaders*
Advising for student success	Occasional, mostly course scheduling	Sustained, focused on student priorities and progress toward expected proficiencies and project-based work	*Advisors, advising associations, faculty members, academic administrators*
Increasing student awareness and motivation	Limited, uneven, instrumental	Students know what they are expected to learn and plan early for their Signature Work	*Academic administrators, advisors, faculty members*
Placing value on credentials	Graduates value credentials for their utility, means to an end	Graduates value credentials for both their inherent value and their applicability—graduates are empowered by the demonstrated proficiencies that degrees signify	*Advisors, alumni, employers*
Documenting student learning outcomes	Transcripts affirm credit hours earned	E-portfolios document accomplishment and proficiencies	*Faculty members, registrars, accrediting associations*
Expanding experiential education	Optional, occasional	Required, sustained, assessed	*Faculty, academic administrators, disciplinary associations, foundations*
Closing equity divides	Deep and persistent inequities reinforced by standard curricula and structures	To ensure equity, curricula and structures respond to students' different backgrounds and strengths; learning plans are personalized	*Faculty members, academic administrators, advisors, disciplinary associations*
Expanding high-impact practices†	Optional, occasional	Required, sustained, included in all general education pathways	*Faculty members, consultants, foundations, associations*
Deploying technology	Unsystematic, idiosyncratic; focused on stand-alone courses rather than overall learning goals	Strategic, well aligned with curricular outcomes and student goals; also used to help students with needed areas of improvement	*Consultants, faculty development experts, faculty members*
Forging connections with the public good	Left to faculty discretion	Highly intentional, through exploration of public questions by students and faculty	*Faculty members, public partners*

* A version of this figure appears in *General Education Maps and Markers: Designing Meaningful Pathways to Student Achievement* (AAC&U 2015a, 11).
† For more on high-impact practices, see page 35.