Connecting General Education, Liberal Learning, & The Major at Virginia Tech

Time for a Change?

Virginia Polytechnic Institute and State University
February 24, 2011
TOP TEN INDICATORS THAT IT MAY BE TIME FOR TODAY’S DISCUSSION
You ask a student in your Anthropology 101 class why she decided to take your course and she responds, “Because I needed something at 10:30 on Mondays and Wednesdays.”
• A student completes four semesters in Italian with good grades but finds he cannot direct his taxi driver in Florence or complain that his bathroom sink is stopped up.
• The odds that two Virginia Tech students, meeting at random at Deet’s Place, will have read the same book or discussed the same issues at some point are (a) not great (b) slim (c) not significantly different from zero.
• Asked to serve on a general education committee, a member of the Physics faculty responds, “I don’t teach general education courses.”
• A frequently heard question during advising appointments: “Why do I have to take all these courses?”
As a campus tour passes War Memorial Hall, a savvy parent asks, “What are Virginia Tech’s baccalaureate learning objectives?” and the guide says, “Huh?”
• Three students, all of whom have completed the science requirement, are asked, “Why is it colder in the winter than in the summer?”

Their answers:

– Because the days are shorter.
– Because the sun is further away from the earth.
– Because there is no such thing as global warming.
When I asked [students attending the “VP Is In” session] what they did not like, you might . . . guess what came up first: academic advising. The concerns seem to be about some advisers who do not know the answers to questions, “do not care,” resent having to serve as advisers and have to serve too many students.

Edward F. D. Spencer, Guest Columnist, *Collegiate Times*, February 21, 2011
• The most frequently voiced academic goal in a student’s first two years: “to get general education out of the way.”
And the Number One Reason Why It May Be Time To Reflect on the Curriculum?
The current general education program was adopted before many Virginia Tech students were born!
The worst—or best—of times?

Sharp decline in general fund appropriations to public higher education in Virginia and in general fund appropriations on a per student basis

+ Sharp increase in tuition

= Virginia’s students now pay far more for their college educations

New legislation proposing institutional incentives for enrollment, degree-completion, graduation, and other benchmarks — promoting STEM disciplines and the students enrolled in them

• “If we want to make Virginia the economic growth capital of America, we have to first make Virginia the workforce training and higher education capital of America. That’s because in today’s knowledge-based economy, the best jobs go where the best workers are located.”

Heywood Fralin, CEO of Medical Facilities of America, Inc. and Chairman of the Virginia Business Higher Education Council

• “We absolutely must make a renewed and sustained commitment to making college accessible and affordable for our young people. And when they enroll in college, we need to help make sure they complete their work and graduate with a quality degree.”

John O. “Dubby” Wynne, Vice Chairman of the Council on Virginia’s Future
THE CHALLENGE?
To build on emerging support for education as an economic engine by integrating pressing Commonwealth objectives into a broader but no less urgent academic agenda — strengthening general education and the link between general education and the major.
Our Priorities

• Appreciating the “epiphanies” of the past 20 years that now inform reviews of undergraduate education
• Focusing in particular on the challenge of linking general education and the major
• Observing exemplary practices
• Learning from one another
• Weighing alternate strategies for bridging, integration, and implementation
• Creating a platform for further discussion
Our Approach

1. Reviewing an emerging consensus
2. Small group discussions: understanding the issues
3. Techniques, tactics, and exemplary practices
4. Small group discussions: considering design improvements
5. Considerations towards implementation
6. Small group discussions: considering alternate approaches
7. Conclusions
TAKING STOCK
What factors may inhibit scrutiny and possible reform of undergraduate education at Virginia Tech—and what factors should encourage scrutiny and possible reform?
The Five “Epiphanies”

• Every student deserves a liberal education
• Every faculty member contributes—either positively or negatively—to the liberal education of every student.
• What matters is not what is taught but what is learned.
• Students learn more effectively when they know what they are expected to learn.
• Assessment can play a critical role in documenting what is learned—but must be used to drive improvement.
Every one of these epiphanies assumes an integrated curriculum in which general education and the major are closely aligned and interdependent.
## Aligned and Interdependent

<table>
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<tr>
<th>Every student deserves a liberal education</th>
<th>Only the university as a whole can assure this obligation.</th>
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<tr>
<td>Every faculty member contributes—either positively or negatively—to the liberal education of every student.</td>
<td>Every major must contribute to the accomplishment of the university’s liberal education objectives.</td>
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<td>What matters is not what is taught but what is learned.</td>
<td>The emphasis on competence must be apparent in all disciplines</td>
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<td>Students learn more effectively when they know what they are expected to learn.</td>
<td>Intended outcomes of general education, the major, and the bachelor’s degree must be clear</td>
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<td>Assessment can play a critical role in documenting what is learned—but must prompt improvement.</td>
<td>Assessment at all levels of the curriculum is essential to coherent progress in assuring student learning.</td>
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An Emerging Consensus

CHANGING PARADIGMS

- 19th Century college: common core curriculum
- 20th Century university: breadth (general education) + depth (the major)
- 21st Century colleges and universities: connecting liberal and professional learning

(Carol Geary Schneider, “Contemporary Goals for Undergraduate Learning,” AAC&U, 10 June 2002)
An Emerging Consensus

GOALS FOR 21ST CENTURY LEARNING

- Accomplishment of complex core proficiencies (e.g., epistemological savvy, ability to work in teams)
- Command of multiple inquiry capacities (e.g., investigation, analysis, problem-solving, innovation)
- Appreciation for diversity
- Experience in examining and affirming personal values
- Associative, integrative approach to knowledge

(Carol Geary Schneider, “Contemporary Goals for Undergraduate Learning,” AAC&U, 10 June 2002)
An Emerging Consensus

STRATEGIES FOR 21ST CENTURY LEARNING

✓ “Active” learning: emphasis on “hands-on” projects
✓ Across-the-curriculum reinforcement of core skills (writing, computation, second language, listening)
✓ Experiential learning (apprenticeships, fieldwork, service learning)
✓ Team learning (at a distance and face-to-face)
✓ Course-to-course linkages
✓ Culminating experiences
✓ Emphasis on competence

*(Carol Geary Schneider, “Contemporary Goals for Undergraduate Learning,” AAC&U, 10 June 2002)*
## Liberal Education Outcomes—Across the Curriculum

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<th>What?</th>
<th>When</th>
<th>Expected Outcomes</th>
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<tr>
<td>Knowledge of Human Culture &amp; The Natural World</td>
<td>First-Year Experiences</td>
<td>A plan of study . . . should clearly connect the expected outcomes to the student’s choice of courses and major field(s). Learning goals, experiences, resources, and assessments should be aligned . . . .</td>
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<tr>
<td>Intellectual &amp; Practical Skills</td>
<td>Focused Studies, Major/Minor(s)</td>
<td>Milestone assessments as students progress in their studies in both general education and the major should be tied to key outcomes . . . .</td>
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<tr>
<td>Individual &amp; Social Responsibility</td>
<td>Advanced Integrative &amp; Culminating Work</td>
<td>Experiences in which the student actively demonstrates and is assessed for his or her cumulative accomplishments of the college career.</td>
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At Virginia Tech

What issues arise from inadequate integration of general education and the major?

– Student lack of esteem for general education as “something to get behind you”?
– Assumption that liberal arts offer noble but less relevant skills and knowledge?
– Little attention within majors to the university’s liberal education objectives?
– Little esteem for professional education conveyed through general education?
– Complaints from those focused on majors about inadequate preparation of students in general education?
– Perplexity of students whose majors may not lead directly to related employment?
Techniques, tactics, best practices

A  Develop overarching elements
B  Sustain linkages
C  Relay responsibility
D  Share responsibility
A Overarching Elements

• Implement distinctive elements at critical junctions throughout baccalaureate curriculum so as to create defining educational experience
  – First-year experience
  – Second tier, in-depth learning
  – Capstone experience
“University-Wide Goals”

With the objective that all its students should gain an understanding of social responsibility, Michigan State has adopted an approach that spans the entire baccalaureate curriculum. Housed initially in residential colleges, the program seeks to build a culture of engagement and reflection.

~Twenty-First Century Chautauqua Program
Michigan State University
Alternate Approaches, Clear Goals

The University of Mary Washington identifies eight goals it expects students to meet: effective writing, computation, scientific literacy, cultural awareness, knowledge about Western civilization, understanding of “the forces shaping human behavior,” competence in a second language, and physical fitness.

The catalog offers alternate approaches through which competence may be documented or demonstrated.

California State University-Monterey Bay lists alternate approaches to 13 University Learning Requirements.

“Our ULR system works a little bit like getting your driver's license. When you get your license, you are not held accountable for how you learned to drive. You just have to demonstrate your knowledge and abilities.”
B Sustaining Linkages

• Regard liberal education as a four-year program *aligned with* (rather than simply preparatory for) the major

• Create opportunities for connection of learning from different courses, disciplines, contexts

• Encourage mediated connections between classroom and field-based learning
Education as a “Continuum”

*Education should be viewed as “a continuum, both vertically—across the primary, secondary, and collegiate levels—but also horizontally in college—across courses, programs of study, disciplines, general education and the major . . . .”* To this end, “some campuses are using general education and the major in complementary and mutually supportive ways, essentially breaking down the barriers between these two traditional elements of a liberal education.”

Andrea Leskes, AAC&U
Throughout Four Years
At the University of Albany (SUNY)

“The General Education Program . . . . is conceived as extending throughout the four years of undergraduate study. Indeed, certain requirements, such as those in U.S. History, Global and Cross-Cultural Studies, and Oral Discourse, may be more appropriately completed during the junior and senior year.”
Climbing the Tiers at The University of Arizona

- **Tier One** introduces students “to fundamental issues and concepts in three study areas: Traditions and Cultures, Individuals and Societies, and Natural Sciences.” Students complete Tier One by the “midpoint” of their degree.

- **Tier Two** offers juniors and seniors “more in-depth examination of particular disciplines.” Courses are organized into four study areas: Arts, Humanities, Individuals and Societies, and Natural Sciences. One study area may be satisfied by course work in the student’s major.
Goals → Competencies → Capstone at CSU-Monterey Bay

- A commitment to outcomes-based education expresses itself both in overall goals ("creative expression in the service of transforming culture,” “technological, aural, and visual literacy,” etc.) and in required competencies ("community participation,” “science,” “vibrancy,” etc.). There is also a capstone experience that incorporates the “overall learning goals” of the university.
C  Relaying Responsibility

- Majors clarify expectations
- Expectations are understood and addressed by students and faculty
- Majors express understanding that skills not challenged and developed erode
- All faculty accept responsibility for the baccalaureate education of all students
The “Liberalizing” Major at Rice University

• Emphasis falls not only on what is learned—but *how*. Undergraduate students complete two or more courses in each of four “ways of knowing.” Some of these “ways” are approached through liberal education courses. *Others may be approached through courses in the major.*

– Approaches to the Past
– Encounters with Texts and the Arts
– Interpreting Human Behavior: Individual, Social, and Cultural
– Engaging Science and Technology
D  Sharing Responsibility

• Through creative faculty appointments, extensive faculty development, and innovative curricular design, erase or perforate distinctions between liberal and professional education
• Expect all disciplines to consider germane “liberal arts” issues (ethical issues in accounting, the rhetoric of economics, the history of chemistry, the sociology of health care, etc.)
• Expect liberal arts disciplines to manifest awareness of and appreciation for issues of professional education
“Learning to Write Well” at Hamilton College

• “Of all the framers, the most energetic word-smith was Hamilton. . . . Hamilton's relationship with words was intimate and inexhaustible.” Fittingly, the College requires “at least three writing-intensive courses” of all students, but that requirement is only “a small part of the culture of writing at Hamilton.”

All faculty share a commitment to sustaining and improving the writing of their students.
It takes a baccalaureate curriculum . . .

The General Education Program emphasizes the development of the baccalaureate competencies in all undergraduate courses.

Students may fulfill certain requirements either through courses or designated experiences.
Practice in Your Chosen Area at the University of Washington

• Arts and Sciences students at the University of Washington must earn 10 credits of writing-intensive courses following a 5-credit English composition course. Catalog advice to students: “At least some of your writing-intensive courses should be courses in your major, providing you with writing instruction and practice in your chosen area of study.”
YOU KNOW WHAT’S FUNNY? I NEVER STUDIED ENGINEERING AND I’M YOUR BOSS.

IN FACT, I MAJORED IN... UM... GOSH, I DON’T REMEMBER.

YOU FORGOT YOUR MAJOR? I DON’T BOTHER REMEMBERING THINGS I CAN WRITE DOWN.
Which of the principles shown in these examples might be worth considering at Virginia Tech?
Principles worth considering?

• Framing university-wide learning goals that explicitly involve both general education and the major?
• Focusing on the achievement of competencies in both general education and the major?
• Asking majors to clarify their “liberalizing” intent?
• Replacing the “two and out” model with general education “throughout the curriculum”?
• Ensuring learning in depth in general education through tiering?
• Supporting closer collaboration between faculty in the majors and those focused on general education?
• Identifying overarching priorities and areas of convergence?
• Emphasizing broad experience with different “ways of knowing”?
• Offering alternate paths to common goals?
So You Want to Strengthen General Education and the Major?

Six Tactics for Challenging Times
1 Raise **Compelling** Questions

– Are students developing competitive intellectual and practical skills? Would reinvention enhance competitiveness? Offer more conspicuous utility?

– Does the current GE program document that students mature in their commitment to individual and social responsibilities? Would reinvention support greater intentionality? Effectiveness?

– Does the current program effectively enable students to grow in their knowledge of human cultures and the natural and physical world—knowledge vital in a nation reassessing priorities?
– Does the current program offer ample opportunity for integrative learning—now a critical survival skill in an Internet world? Would reinvention more clearly assure such learning?

– Does the current program build on and celebrate the educational values inherent in a diverse learning environment?
What are the compelling questions at Virginia Tech that should prompt and support discussion of baccalaureate education?
2 Understand the *Realities*

- Are actual costs *and returns* of current program documented?
- Are the costs of *not* reinventing general education documented and appreciated?
- Can reinvention be made to justify itself in both economic and intellectual terms?
- How powerful are the constraints, present and emerging?
- Are there alternate paths to similar objectives?
Which of these realities is likely to be most pressing at Virginia Tech?

Current costs?
Costs of doing nothing?
Economic and intellectual goals?
Constraints arising from structure, tradition, preference for status quo?
3 Identify *Existing Resources That Might Be Better Used*

- Are program goals communicated in view book and catalog?
- Are campus tour leaders on board?
- Are advisors well-informed and accountable?
- Are program goals celebrated in orientation and first-year experience programs?
- Is a commitment to diversity “beamed” at every opportunity?
- Are public events—opening convocation to commencement—used to convey the baccalaureate goals of the university?
4 **Expand** the Use of *Existing Communications* Structures

- Do course syllabi in the general education program (a) make clear the learning objectives of the course and (b) suggest the applications of the course to related fields of study?
- Do course syllabi in the majors make clear the general education competencies and breadth assumed in advanced study courses?
- Are faculty members encouraged to refer frequently to such associations in teaching and advising?
Are there resources and communications structures at Virginia Tech that might be used more effectively to define and promote undergraduate educational objectives?
5 Stand On
“The Assessment Platform”

• Is there a broadly shared commitment to the assessment of learning outcomes?
• Is that commitment understood and supported at the department level?
• Does assessment measure accomplishment relative to clearly stated learning outcomes?
• Are the results of assessment used to upgrade course design and teaching?
• Is there provision for regularly revisiting and, if appropriate, revising the general education program?
What might the university do to make assessment more useful for the faculty?

What might the faculty do to make greater use of assessment in improving learning?
6 Frame Compelling and Politic Goals for Curricular Reform

GOALS SHOULD BE

• Substantive
• Easily grasped, internally and externally
• Consistent with emerging body of knowledge
• Demonstrable through assessment
• Aligned with institutional identity and employer needs
• Cognizant of current economic realities
A “C” Level Example

- Coherence
- Continuity
- Common Learning
- Competence Development
- Community Consciousness
Coherence

• Will the reinvented curriculum more fully reflect—and *advance*—the institution’s mission?
• Will the curriculum embody *genuine choices*?
• Will the curriculum express a more explicit emphasis on *learning*—rather than teaching?
• Will the objectives of all *courses* be clearly stated?
• Will there be a recognizable *and marketable* logic to the new curriculum?
Continuity

• Will there be clear links between general education and education in the chosen field?
• Will values of general education emerge through study in majors? *Vice-versa*?
• Will opportunities for students and faculty to build (and cross) bridges between general education and the major expand?
• Will the Virginia Tech curriculum articulate more fully with community college curricula? And vice-versa?
• Will the values of the reinvented general education program be available to the transfer student?
Common learning

• Will the odds increase that two students, meeting at random on campus, will have read the same book? Considered similar intellectual issues? Explored analogous questions?

• Will the reinvented curriculum embody an overall understanding that effective common learning (what is learned) requires a deliberate focus on how it is learned?
Competence development, e.g.

Will students who complete the institution’s foreign language requirement be able to order a croissant in Paris or a latte in Florence?

Will students who complete the quantitative reasoning requirement be “numerate”?

Will all students become effective epistemologists? I.e., “computer fluent”?
Community consciousness

• Will students have the opportunity to celebrate campus and community diversity?
• Will students have the opportunity for academic reflection on community engagement?
• Will transfer students have the opportunity to become oriented to the culture of the academic community?
Which of these issues should take center stage in discussions at Virginia Tech?
Which—if any—might be set aside?

Coherence?
Continuity?
Competence Development?
Common learning?
Community consciousness?
“Potholes” That Make Challenging Times MORE Challenging

And How to Patch Them

1. Faculty resistance or indifference
2. Structural impediments
3. Inadequate or uninviting faculty development
Colleagues’ resistance or indifference.
Sounds like . . .

- “Now that you’re gotten general education out of the way, you’re going to have to buckle down.”
- “Why are you asking about Enron? This is an accounting class!”
- “No, you can’t announce your recital. We have an entire chapter to cover today.”
- “This is a class in Romantic poetry. You can’t seriously want to write an essay on railways?”
- “We’re learning here about the *Industrial* Revolution. If you want to learn about double-entry bookkeeping, take an accounting class.”
Even though Virginia Tech offers . . .

- A coherent curriculum that provides continuity, assures competencies, enables common learning, and encourages community consciousness
- Adequate classroom resources
- Learning opportunities outside of the classroom
- Rational outcomes assessment
every member of the faculty, whatever his or her field of expertise, contributes to the liberal education of every student . . .
The result can be disappointing . . .

- for faculty members who are dedicated to general education
- for students and their families
- for those who will employ students or educate them in graduate school
What makes it worse?

Students are more likely to hear adverse opinions about liberal education goals within their majors, in their third and fourth years, when they have become more clearly focused, more self-interested, and more highly motivated.
How do you increase the odds that your colleagues will support the aims of a general education curriculum reinvented to ensure closer alignment with the major?
2 Servant as Master
2 Sounds like . . . .

• “I’m sorry, but we can’t re-write the catalog.”
• “There’s no way we can make that work given the current budget structure.”
• “The Commonwealth has reporting requirements we have to meet.”
• “Our human resources system can’t handle team teaching.”
• “Our course management software is plain vanilla—and you’re proposing a chocolate macadamia nut curriculum.”
How can the faculty work with administrators to make certain that “the system” can absorb the results of curricular reform?
3 “Late Adopters”

Listen up, now. We’ve got to cover this today. It’s likely to be on the exam, so pay attention!
Sounds Like

• “Assessment? I give tests, don’t I?”
• “Learning outcomes? I’m giving grades, aren’t I?”
• “Learning styles? There’s just one that works: pay attention!”
• “Faculty development is for junior faculty trying to earn tenure.”
What can the faculty do to express its curricular leadership in an environment emphasizing the assurance of learning?
So far, more questions than answers?

In conclusion, some time-tested principles
Understand the Task

- Remember that the faculty are manufacturers, not importers.
- Respect the advantages of an incremental change strategy.
- Be willing to challenge prevailing practices while respecting individuals who may have a vested interest in them.
Organize Effectively

- Adopt a realistic time frame.
- Make sure the progress towards your completion date continues.
- Assure adequate support.
- Maintain communications.
Work From—and Offer—a Broad Knowledge Base

- Avoid limiting definitions.
- Recognize that much learning takes place outside class.
- Seek allies in all disciplines and in all functional areas of the university.
Temper Vision with Realism

- Dream ambitiously—but be prepared to face budgetary realities.
- Risk pushing your colleagues—but track what the community thinks.
- If priorities compete, consider reconciling them.
- Commit to seeing it through.
Operate Strategically

- Work both sides of the road.
- Beware the “five month” academic year.
- Respect legitimate concerns.
- Consider alternate approaches to approval.
- Consider incremental implementation.
Our Priorities

• Appreciating the “epiphanies” of the past 20 years that now inform reviews of undergraduate education
• Focusing in particular on the challenge of linking general education and the major
• Considering some exemplary practices
• Learning from one another through discussion
• Weighing alternate strategies for bridging, integration, and implementation
• Creating a platform for further discussion
Thank you, Hokies!

Paul L. Gaston, UVA 1966