

**A Changing Business Model in Higher Education:  
Emerging Technologies in Teaching and Learning and Discovery  
Steven D. House  
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Elon University**

*Overview*

The combination of rising higher education costs and the development of emerging teaching and learning technologies is bringing dramatic changes to higher education. This evolution is inspiring Elon University to prepare for changes in how families and students will manage the college/university experience. As new options in knowledge sharing evolve, we are at a time of great challenges and opportunities.

University leaders have been following this evolution closely. Among the questions each member of the community should be asking are:

1. What are the opportunities and challenges for Elon at a time of economic, demographic, and technological change?
2. How can we best evaluate emerging options and support their implementation to deepen learning while maximizing the value and impact of an Elon education and serving the mission of the university and the public good?
3. How must we adjust our business model?

As families seek to control costs, it is expected that students could transfer more credits to Elon from less expensive institutions, including online courses, large and small. Elon's senior staff continually monitors developments impacting higher education, anticipating imminent scenarios and preparing how best to adapt. The expanding options in online education are of primary deliberation. Many institutions are joining online learning consortiums and the nation's best-known universities are extending their reach into massive open online courses—or MOOCs.

Elon currently requires that a minimum of 60 or more credits of the total 132 academic credits be completed at Elon to earn a degree. In addition, the university requires the last term of a student's education before graduation be completed at Elon. While Elon does not anticipate a rush of students to take MOOCs for credit, policies are already in place to protect the core functions of the university, and we are further assessing how to handle the possibilities. With major university systems joining the online education movement and the number of American Council of Education (ACE) accredited online courses expected to escalate, it is just a matter of time before increased transfer credits become a standard, even for some massive online courses.

If each year 5% of Elon students choose to take a semester away from Elon to earn transfer credits online from other institutions or through MOOCs; the impact on revenue is almost \$5 million per year.

Because of the likelihood of increased transfer credits, Elon's registrar has prepared a report on how we will administer students' presenting more and more credits for transfer back to Elon and an institutional recommendation regarding awarding academic credit for MOOCs. Recognizing that learning can take place in various modes and places outside of the traditional college classroom, the Office of the Registrar proposes that, beginning Fall 2013, the University accepts the ACE recommendation for credit for MOOC courses that have a direct course equivalency at Elon University. In addition, if a student receives credit for a MOOC from a regionally accredited institution, this credit will transfer as does any other credit.

As Elon ventures further into the world of online and digitally enhanced education, it is imperative that all courses/programs maintain the highest quality. In striving to do so, we can be guided by best practices for online education developed by the [Sloan Consortium](#) in their Quality Scorecard for the Administration of Online Education Programs. The benchmarks include criteria for: institutional support; course structure, course development and instructional design, technology support; social and student engagement; and evaluation and assessment. An additional resource is the [“Quality Matters”](#) program, an organization that outlines standards for online education and provides a peer-review process to certify the quality of online courses.

President Lambert and Provost House have initiated discussions over the past year with leaders of higher education to discuss future options. Beginning in fall 2014 Elon will join the Colonial Athletic Association (CAA), which has a strong Academic Alliance that includes some of the nation's leading universities. One possibility is for Elon to connect in an online alliance of summer and semester courses with CAA schools such as Delaware, Drexel, Hofstra, James Madison, Northeastern, and William & Mary. On August 2, 2013, President Lambert and Provost House initiated a conversation with Herman Berliner, Provost at Hofstra and chair of the CAA's Academic Alliance Provost's Council regarding such collaboration in the CAA. He agreed that this should be a top priority of the Alliance.

It is critical that Elon continue to encourage the experimentation and development of emerging technologies in teaching and learning and discovery. At the same time we must continue to focus on our commitment to academic challenge and on highly engaged, face-to-face interactions between faculty and students. It is in this spirit that we invite you to read the full report below to better understand the challenges ahead and how Elon's commitment to innovation and a student-centered and learning-centered community will serve as our compass as we prepare for teaching and learning in the 21<sup>st</sup> century.

*Everyone can sense the powerful forces affecting colleges; some would say they threaten to destroy the four-year residential model altogether. Some expect this to happen fast. ... Online education may force many universities to admit that they are not really in the transformation business. Is a 200-student lecture hall with a graduate student at the front the path to transformation? In many cases, it's barely education ... What exactly makes it worth so much time and money? ... Colleges are better-positioned than most universities in this regard – but online education will still bring real pressure to demonstrate the distinct value of what a college can deliver. ... What are we for? What's the goal? Since there are now innumerable other (and cheaper) ways to be educated, why are we doing this? The colleges with a compelling answer to these questions – where everyone on campus knows the answers – are going to be fine. ... If a college's true product is a transformed student, then the main effect of the next decade should be to redouble every school's commitment to that cause. The explicit goal of residential liberal arts colleges will again be to increase what a student knows and change who she is. If this is true, then the conversations left to be had are about the transformative mission of the school. What exactly is it? Deciding on a clear and important set of goals will not be easy, but colleges cannot afford to kick that can down the road. We each need to figure out what our college is for. Dan Currell, [What is College For?, Inside Higher Education, June 2013](#)*

### ***The Elon Commitment - Impact and Value***

President Lambert's winter 2013 *Magazine of Elon* column ([The Coming Crises in Higher Education](#)) describes the current state of higher education.

*Daily news reports and websites are full of data and speculation about the future of higher education, and most of it appears ominous. This past summer, an analysis of 1,700 colleges*

*and universities by Bain and Company found that one-third of the schools are on “an unsustainable financial path,” meaning they are overly leveraged, suffering enrollment declines and resorting to deep tuition discounts to attract students. The price of college is reaching \$60,000 a year at some private institutions, stretching the limits of even upper-middleclass families with two or more children ... The highly touted launch of MOOCs (massive open online courses), available at low or no cost by leading universities, has caused some to predict that many traditional brick and- mortar campuses will soon become a thing of the past. New federal support for higher education is not likely because of the enormity of the national debt, with entitlement spending threatening to swamp every other sector of the budget. Indeed, the seas ahead look choppy. These realities will affect many colleges and universities adversely.*

In response to this challenging future, the Elon Commitment strategic plan underscores the Impact and Value of an Elon education. The Elon Commitment is aimed at engaging students' minds and inspiring them to act as leaders and global citizens. Faculty, staff, and students have enthusiastically embraced Elon's goal of being the nation's preeminent community for engaged learning. The Elon mission statement declares that we are an academic community that transforms mind, body, and spirit. At the core of the Elon transformative experience are faculty who are committed to excellent teaching, active scholarship and mentoring students as they prepare for their lives as engaged global citizens. Similarly, all 1,300 Elon employees understand their role as teachers and mentors as together we focus on our student- and learning-centered community.

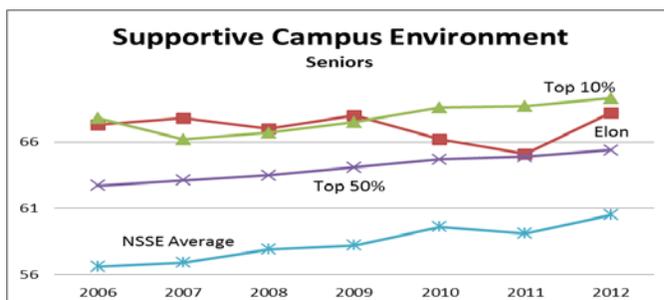
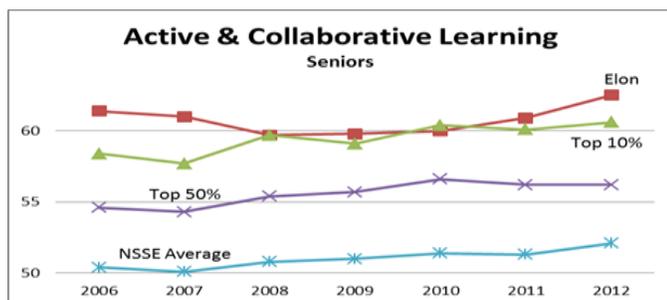
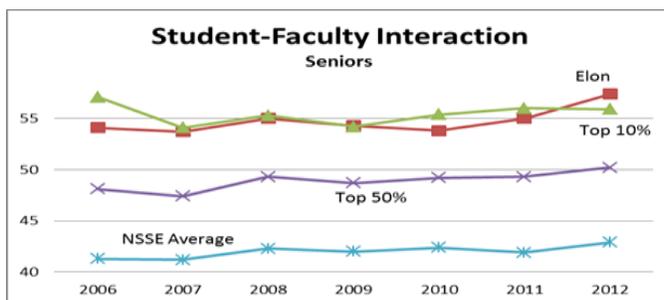
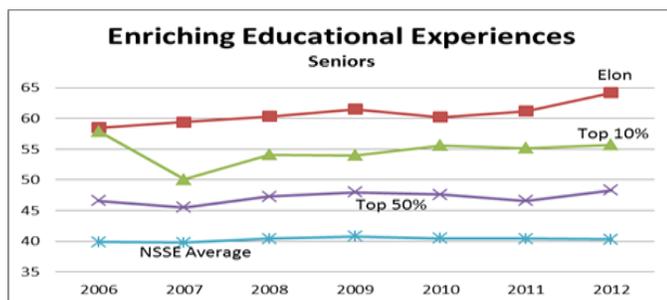
*Classrooms haven't changed much in the past few centuries. Students attend class, take notes and do their homework. The teacher lectures and once in a while administers a test. Students get their grades and move on to the next topic. [Big Data Goes to School, Scientific American August, 2013](#)*

[What are They Learning Sitting Here?](#)  
[A Vision of Students Today](#)



<http://www.youtube.com/watch?v=dGCJ46vR9o>

While the classroom experience at many institutions may not have changed much in the “past few centuries” ([Big Data Goes to School, Scientific American August, 2013](#)), Elon has emerged as an innovative leader in active, experiential and engaged learning. The National Survey of Student Engagement (NSSE) is the most comprehensive assessment of effective practices in higher education, including data this year from 285,000 students at 546 U.S. colleges and universities. Elon students give high marks to the benchmarks of excellence:



Elon’s greatest asset is our shared sense of mission: that we are an academic community committed to student transformation; that we value freedom of thought and liberty of conscience; that we are a liberal arts university with distinctive professional schools and graduate programs; that we believe in active student engagement; that we are dedicated both to teaching and scholarly accomplishment; and that we believe passionately in preparing global and civically engaged citizens for meaningful lives of work and service. Understanding who we are is an asset claimed by few institutions, and it will serve as a compass that will guide Elon in the uncertain times ahead.

The fruits of our common labor are apparent all across the campus. For instance, in the 2008 Association of American Colleges and Universities report [High Impact Educational Practices](#) George Kuh synthesized research on engagement and persistence in college to conclude that certain experiences are particularly beneficial for students. These high-impact educational practices include first-year seminars and experiences, learning communities, writing-intensive courses, undergraduate research, study abroad, service learning, internships, and so on. U.S. News uses these high-impact practices to identify programs that focus on student success ([U.S. News Best College Rankings List](#)) and once again this year, Elon is the only school named in seven of the eight key program categories.

Along with our high-impact educational practices, Elon is currently a tremendous value, and must remain so. Elon offers a high-quality liberal arts and sciences experience for every student, signified by a chapter of Phi Beta Kappa, a top-50 business school, a top-tier school of communications, and innovative and accredited schools of education, law, and health sciences. Only seven private institutions in the nation can boast such credentials. We deliver that level of quality for \$40,000 a year, \$10,000-15,000 less than our peer universities. This partially explains why Elon draws applications from nearly every state and more than 50 nations today. Maintaining Elon’s current recognition as a best value ([Kiplinger’s Best Values in Private Education](#)) will require creativity and resourcefulness as we move forward.

### ***Sustaining – Impact and Value***

In 2005, the Elon campus examined a paper written by President Lambert titled [On Arriving, Deepening and Sustaining: Key Questions about Elon University’s Future](#). The report offered that “Elon stands at a pivotal point in its history” and that “the pieces are in place to lead the way to a new definition of quality in American higher education.” And yet, “the limiting factor is an inadequate resource stream,

Elon is far too dependent on tuition revenue and enrollment growth, and we are fast approaching the day when substantial increases in those two areas will be impractical.” At that time 80% of Elon's operating revenue came from tuition, room, and board, compared with 47% at other top private universities in the South. Similarly, Elon’s budget was inadequately supported by an endowment that was much smaller than levels at peer institutions. Investment income made up about 7% of Elon's annual budget compared with 29% at other top Southern private universities.

The six factors, or valves as they were referred, impacting Elon’s business model in 2005 were:

1. Enrollment growth
2. Tuition, room, and board
3. Income from endowment
4. Current use/Capital fundraising
5. Debt (Bonds)
6. Expenditures

Despite the Great Recession of 2008-2009, Elon maintained its record of strong financial results and stability, operating with a balanced budget for more than 30 years and a surplus for the past 20 years. Although the endowment has increased to almost \$160 million and annual giving has increased to more than \$6.6 million (unrestricted annual fund and restricted giving), like other private institutions, in 2013 Elon continues to draw the majority of its revenue from tuition, followed by private gifts and endowments.

As proof of the university’s financial strength over the past decade, data show that:

- Elon has experienced strong enrollment gains throughout the entire period—admission of new students has shown strong selectivity increases—and Elon has experienced consistent increases in applications.
- Tuition, Fees, Room, and Board were increased as necessary to accomplish the University’s goals and strategic plans.
- The University has significantly increased its endowment values.
- Elon has one of the lowest tuition discount rates in the United States.
- Elon has seen strong increases in Net Assets.

**Enrollment Growth** - Elon’s enrollment increased in the following ways between Fall 2001 and 2013: undergraduate enrollment grew from 4,160 to 5,599 (10-20-13) students, and graduate enrollment increased from 181 to 706 (10-20-13), bringing total enrollment from 4,341 to 6,305 (4,956 in 2005). Since 2001, the University has added three graduate programs, Juris Doctor, Master of Arts in Interactive Media, and the Master of Science in Physician Assistant Studies (January 2013), to its three existing graduate programs, Master of Education, Master of Business Administration, and Doctor of Physical Therapy.

Unlike many other institutions, strong enrollment growth and program expansion have allowed Elon to continue to finance its programs and initiatives without any significant retrenchment.

**Student Selectivity** - Admission of better qualified students increased over the 12-year period 2001-2013, particularly during the early part of the decade. Students’ SAT scores increased from a combined score of 1125 to 1230, a score that equates to 1845 on the revised scale. Elon believes that it is now in the correct spot with respect to SAT scores, matching student competence to the level and nature of its academic programs. During the past several years, the SAT composite score has been in the 1830 -1850 range.

Student Applications - The number of applications for admission to Elon University remains very strong. For Fall 2013, Elon received 9,949 (10,645 in 2012) applications for undergraduate admission into its freshman class of approximately 1,450 students. The total first year enrollment was 1,474 for Fall 2013. Over the last 12 years, applications have almost doubled. This strong demand for Elon University's academic programs provides significant financial flexibility and strength.

**Tuition, Fees, Room and Board** - During the past decade, the University has increased its tuition, fees, room, and board to facilitate meeting the goals of its strategic plans. In the period from Fall 2001 to Fall 2012, tuition, fees, room, and board increased from \$20,595 to \$40,045 (\$25,371 in 2005). Despite these increases, demand for admission to Elon University has increased significantly. With funds from increased tuition and expanded enrollments, Elon has completed initiatives from its strategic plans such as increasing the number of faculty and staff, enhancing its premier academic programs, and making significant progress on salary when compared with peer and aspirant institutions.

Unfunded Tuition Discount Rate - Elon University's financial success has been aided by control of its unfunded tuition discount rate which has increased only slightly each year during the decade, and remains one of the lowest unfunded tuition discount rates in the nation. Recent data released in the NACUBO Tuition Discounting Study (2012) indicates that the national average for the undergraduate tuition discount rate was 45.0% for first-time, full-time, first-year students. Elon's tuition discount rate for 2012-2013 was 16.0%.

**Income from Endowment** - Elon's endowment has shown consistent growth over the last 12 years. Even in the face of the most recent recession, Elon's endowment went down only a fraction compared to all other decreases in endowment values recorded by The National Association of College and University Business Officers' annual endowment survey. During the 2002-2013 period, the endowment increased by 196%. The endowment reached its highest point in history with a market value of \$159 million as of May 31, 2013 (\$61 million in 2005).

**Current use/Capital fundraising** - Annual fundraising is a powerful force in any college budget process. Each \$1 million raised is the equivalent of the income from a \$20 million endowment. Capital fundraising has been critical to the growth of Elon's outstanding physical plant. Similar success in the Elon Fund and Elon Athletics Fund have resulted in significant increases in the level of funding available for the university's annual operating budget. Annual gifts for unrestricted annual fund and restricted giving increased from \$3.6 million in 2005 to \$6.6 million in 2012. As a result, the percentage of the budget coming from annual gifts remained approximately the same - 3.8% in 2005 and 3.7% in 2012. Because of purposefully addressing the requests of the donor, there has been a significant shift from unrestricted annual funds to restricted funds designated for specific schools/college and projects.

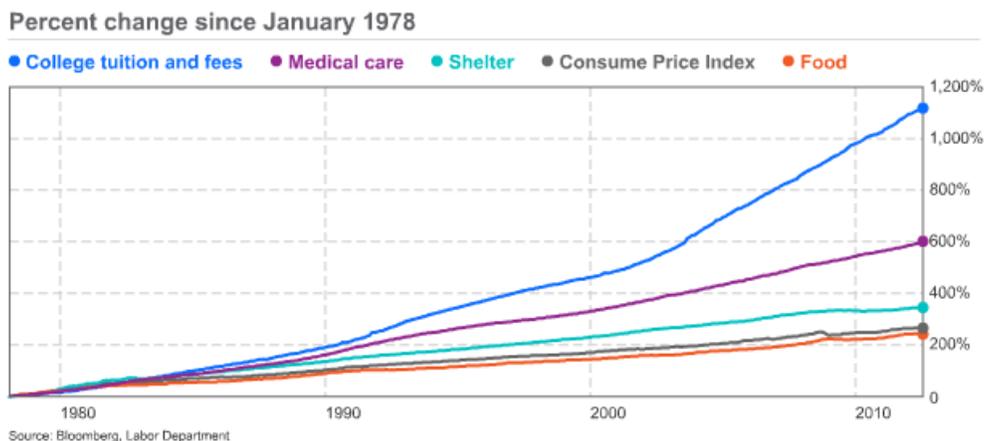
**Debt (Bonds)** - Elon's bond debt totals approximately \$159 million dollars (increase from \$50 million dollars in 2005), and the debt service is approximately 4.7% (decrease from 6.0% in 2005) of the university's budget. While this is a manageable figure, our bond capacity over the next several years has limitations.

**Expenditures** - Spending at Elon has not been profligate or wasteful, and every effort has been made to ensure that each new budget dollar has maximum impact on campus.

**Net Assets** - Elon University's net assets have increased by 136%, more than doubling over the past decade to \$372M. This increase during the recent period of economic uncertainty has been the result of prudent budgeting, monitoring of expenses, and moderate tuition increases. The University has been able to protect the mission of the institution while maintaining momentum on priority areas of the campus.

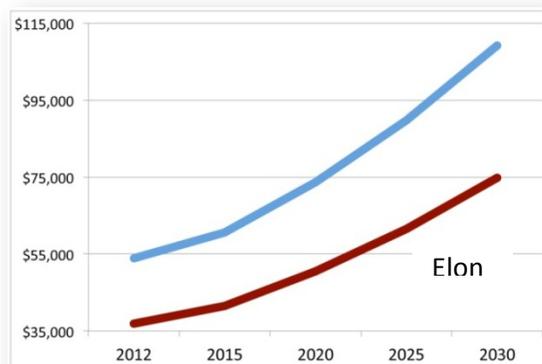
Elon has also been able to use leverage in the form of tax-exempt debt to build new revenue producing facilities, such as residence halls. That has allowed the institution to focus its fundraising efforts on endowment and non-revenue producing facilities such as classroom buildings.

Although each of the six factors/valves has had a positive effect on Elon University’s balance sheet, efforts to increase tuition revenue, now the dominant form of funds for most colleges and universities, is running headlong into a public that is reluctant to pay much more for higher education. A recent Sallie Mae report suggests that this reluctance is a reflection of a “post-recession reality” in which families are becoming more cost conscious about both where to attend college and how they can save money while attending ([Holding the Line](#)). Similarly, Moody’s Investor Service concluded that at the same time families are more cost conscious the “recent rush by leading universities in North America and Europe to create collaborative networks offering free online courses through Massive Open Online Courses (MOOCs) marks a pivotal development for the higher education sector” and that “MOOCs signal a fundamental shift in strategy by the industry’s leaders to use their powerful brand reputations to get ahead of rapid technological changes that could destabilize their residential business models over the long-run.” Moody’s expects positive credit effects for the higher education sector overall as “elite universities” offer MOOCs; however, there will be “negative effects on for-profit education companies and some smaller not-for-profit colleges that may be left out of emerging high reputation online networks” ([Shifting Ground: Technology Begins to Alter Centuries-Old Business Model for Universities](#)).



*from Are College Costs Reaching a Breaking Point, Bloomberg BusinessWeek, August 2013*

**Projected Comparative Total Costs at 4% Annual Growth  
Elon University vs. a Competing Private University**



*“Today, President Obama outlined an ambitious new agenda to combat rising college costs and make college affordable for American families. His plan will measure college performance through a new ratings system so students and families have the information to select schools that provide the best value. ... A rising tide of innovation has the potential to shake up the higher education landscape. Promising approaches include three-year accelerated degrees, Massive Open Online Courses (MOOCs), and “flipped” or “hybrid” classrooms where students watch lectures at home and online and faculty challenge them to solve problems and deepen their knowledge in class. Some of these approaches are still being developed, and too few students are seeing their benefits. The federal government can act as a catalyst for innovation, spurring innovation in a way that drives down costs while preserving quality.”*  
[Fact Sheet on the President’s Plan to Make College More Affordable: A Better Bargain for the Middle Class](#), August 2013

It is in this environment:

- where senior academic administrators lose sleep each night because the cost of higher education is beyond the reach of many ([Holding the Line](#)),
- where politicians and the media daily tout emerging technologies in teaching and learning that can provide high-quality, tuition-free information,
- and, where the Elon Commitment strategic plan motivates us to fund critical initiatives that will transform students,

that the number of factors impacting Elon’s business model are reconsidered. In addition to the 6 factors, or valves, recognized in 2005, four additional factors must now be included in 2013.

7. Increased financial aid to support diversity and to support global engagement (100% access to a global experience)
8. Availability of high-quality tuition-free information – online courses and MOOCs
9. Students reducing cost by graduating in less than four years
10. Students reducing cost by transferring in more credits toward graduation

As Elon now addresses these factors we can take some solace in knowing that “despite the reluctance to pay higher prices, families still express a belief in the importance of higher education and are willing to take steps to pay for it.” ([Holding the Line](#)) The public still overwhelmingly believes that “higher education is needed for a desired profession and to earn more money, and almost all view it as an investment in their futures” ([Holding the Line](#)). In response to this challenging future the Elon Commitment strategic plan underscores the Impact and Value of an Elon education.

### ***Enhanced Financial Aid***

In a major initiative to have the campus better reflect the world’s socio-economic, ethnic, and cultural diversity, the Elon Commitment strategic plan will double the institutionally funded need-based financial aid budget by 2020 and expand endowment-funded need-based financial aid. Elon’s classrooms and campus life will be much richer when we recruit more students from a variety of backgrounds who challenge and lead us by sharing their life stories, as our Watson, Odyssey, Eure, and Susan Scholars have done.

One result of this commitment was for Elon to introduce the annual budgeting of a quasi-endowment fund, the income of which is to be used for scholarships. This quasi-endowment has grown to an \$8 million annual commitment in the budget which is shifted to the endowment at the end of the year and used for scholarships.

In addition, Elon reconfigured merit-based financial aid awards, including presidential scholarships, which are targeted to benefit students whose goals are most in keeping with Elon's mission and values. Students who are serious scholars and experiential learners, those with special artistic or performance talents, and others who have demonstrated passions and skills in service or leadership, will be provided with recognition and financial support as they seek a challenging academic environment and continue their journey of learning.

These commitments have resulted in an increase in financial aid (need-based and merit based) from \$14 million in 2005 to more than \$32 million in 2012. At the same time the unfunded discount rate has increased from 13.1% to 16% and the funded discount from 3.2% to 3.6%.

### ***Achieving 100% Access to a Global Experience***

As part of Elon's efforts to prepare students to thrive in the 21st century, the Elon Commitment includes as one of its main objectives to achieve 100% access to a global experience for students. To be successful, informed citizens of the world, students today must understand and interact with people of different cultures, faith backgrounds, and languages.

Currently, 72 percent of graduating seniors have participated in our study abroad program, which makes Elon the #1 master's-level university in the nation for the number of students who study internationally. By 2020, we want to give all students the opportunity to have a global experience, either domestically or abroad. The launch of Elon's Study USA program in fall 2012 will play a critical role in meeting this goal. The components and challenges of meeting this goal, particularly the financial challenges, are outlined below.

Elon defines "access" as the elimination of financial or institutional obstacles for students who want a global experience. We define a "global experience" as a high-impact academic course for credit that includes at least seven days away from campus, as well as preparation for and examination of cultural differences through intentional interactions and follow-up reflection. These global experiences may occur abroad or in a variety of rural and urban locations within the United States.

The university's Isabella Cannon Global Education Center spearheads our efforts to engage students with the world. Approximately 74% of Elon's 2012 graduates had a global experience (72% studied abroad and another 2% participated in Study USA). Elon's January Winter Term continues to be the most popular time for global experiences. In 2012-2013, 56% of the 1,239 students who engaged in a global experience did so during Winter Term, while 35% participated during fall or spring semester, and 9% traveled during the summer. Elon seeks to gradually move toward a more balanced mix of 45% student participation in Winter Term, 40% during fall or spring semester, and 15% in the summer. One of the biggest challenges to achieving 100% access to global study is meeting the financial needs of students who without assistance would not be able to participate. Elon must significantly increase its financial aid resources, through endowed scholarships in particular, to give all students access to a global experience.

Based on a 2020 benchmark of 90% participation rate and 50% coverage of cost, \$125,000 a year of new funds will be budgeted for 3 consecutive years to a scholarship fund in the Isabella Cannon Global Education Center to support students' global experiences. (Appendix B).

## ***History of Digitally Enhanced Teaching and Learning – Online and MOOCs***

While digitally enhanced teaching and learning has received a lot of attention recently, these approaches are hardly new. In 1960, for instance, the University of Illinois initiated a classroom system based on linked computer terminals where students could access informational resources on a particular course while listening to the lectures that were recorded. Computer-based learning in the 1970s and 1980s made up many early e-learning courses. In 1976, Coastline Community College in California was known as a "college without walls" using a television station as a vehicle. By the mid-1980s, accessing course content on computers became possible at many college libraries. With the advent of the World Wide Web in the 1990s, faculty began to create course websites and to explore pedagogies that only became possible with networked technologies. At the same time, private companies used these new tools to develop new markets in virtual education, pioneered in part by The University of Phoenix, established in 1980. ([\*The Ultimate History of Distance Learning\*](#))

In 2002, 1.6 million college students in the United States took at least one online course during the fall semester and online enrollment as a percentage of total enrollment was 9.4%. In 2011, 6.7 million students took at least one online class in the fall and online enrollment as a percentage of total enrollment was 32%. This increase represents a compound annual growth rate of 17.3%. In comparison, the overall higher education student body has grown at an annual rate of 2.6% during this same period. ([\*Changing Course: Ten Years of Tracking Online Education in the United States - Babson Survey Research Group\*](#)).

As online courses mushroomed, a new phenomenon emerged, quietly at first. The term MOOC (Massive Open Online Course) was coined in 2008 to describe the class "Connectivism and Connective Knowledge" that was offered to approximately 20 tuition-paying students at the University of Manitoba, along with over 2,300 students who signed up for a free and open version online ([\*Top Ed-Tech Trends of 2012: MOOCs, Inside Higher Education, December 2012\*](#)). The MOOC idea emerged into the mainstream a few years later when faculty at Stanford and other elite universities offered free online courses that attracted hundreds of thousands of students from around the world.

To examine how Elon is, and can further, respond effectively to these trends, in 2011-13 Elon's Academic Affairs group partnered with Academic Council to explore and make recommendations for Elon's online courses. The committee's report, *A Report on the Current Status and Potential Future of Online Education at Elon University* (Appendix C), examines the challenges and opportunities presented by online teaching strategies. The committee's charge highlighted the critical importance of both using new technologies in teaching and maintaining a high degree of faculty interaction with students in the classroom. The committee's five recommendations are:

***Recommendation #1:***

The current model of a robust schedule in summer session I is a strong model and consistent with the Elon vision. We recommend that summer session II be made available for similar online offerings.

***Recommendation #2:***

The integration of the new student perceptions of teaching form into the online course is highly desirable in that it provides the faculty member and the university apples to apples assessment of their teaching. The new software allows for the integration of five customized questions. We recommend that faculty work to integrate in these open question the unique elements of the online course they desire to be assessed.

***Recommendation #3:***

Based on our understanding of how the current student feedback is used (only being used broadly by our technology staff to capture key issues to include in faculty preparation for online

teaching), we recommend that a more robust and formative role for this data be implemented. Working with Teaching Learning and Technologies, the Center for Advancement Teaching and Learning, and other master teachers, consideration should be given to each faculty member's professional development as an online instructor. We recommend that current staffing be repurposed to support the development of online instruction at the university.

**Recommendation #4:**

We recommend that department chairs initiate, at the request of faculty, an OL summer course offering. The due dates for these courses are set by the Registrar. Once the course is uploaded into the schedule, we recommend that TLT reach out to faculty and make them aware of development opportunities. Additionally, we like the current practice of a "call for those interested in teaching summer school."

**Recommendation #5:**

We recommend that meeting on campus or if the student is abroad via some online connection before departing for the summer become an expectation of our online courses whenever feasible. Not only is it a best practice, but it may also have the added benefit of protecting the institution in this new "certification" environment being established in many states.

The purpose of the review below is to provide a summary of emerging teaching and learning technologies and focus on the ways in which they can contribute to the teaching mission of the university - through improved student learning outcomes, augmented student engagement, or the ability to reach students who would benefit from these educational offerings, all while maintaining the high level of quality of student learning that is central to Elon's mission.

### ***Types of Emerging Teaching and Learning Courses***

In both academic and popular media, terminology about online education can vary greatly. For purposes of clarity, the definitions provided in the report titled *Changing Course: Ten Years of Tracking Online Education in the United States* – by the [Babson Survey Research Group](#) will be used here.

- **Traditional:** Content where no online technology or web based content is included. The course is 100% taught in person and materially is delivered orally as well as through books and/or articles.
- **Web Facilitated:** A course that uses web based technology 1% to 29% to facilitate face-to-face instruction, such as course management system like Moodle to support documents and assignments and/or engaging guest speakers and other resources via the web. The "flipped classroom" format, in which students get content through out-of-class materials and use class time in various interactive ways – but still get all required class meeting hours from face-to-face meetings – fits this model. The wide majority, if not all, of Elon courses during the academic year are web-facilitated.
- **Blended/Hybrid:** A course that blends online and face-to-face delivery with 30 to 79% of the course delivered online. These courses typically have a reduced number of face-to-face meetings because portions of both information delivery and discussion sessions take place online.
- **Online Courses:** More than 80% of the course content is delivered online. Typically has no or very minimal face-to-face contact.
- **Massive Open Online Courses (MOOCs):** A model for delivering learning content online to any person who wants to take a course, with no limit on attendance – MOOCs have enrolled tens of thousands of students in to a single course - MOOCs are typically offered free of charge, although there may be modest fees for completion certificates or proctored exams.

Online components can be used “synchronously” (the online materials are used at the same time by all members of the class) or “asynchronously” (the materials are used separately on the students’ own schedules). Many online courses make use of both synchronous and asynchronous interaction, while MOOCs are primarily asynchronous.

### ***Blended/Hybrid Courses***

Blended, or hybrid, courses are those that mix online and face-to-face teaching with 30 to 79% of the course occurring online (the Southern Association of Colleges and Schools, SACS, [Guidelines for Addressing Distance and Correspondence Education](#) applies added accreditation requirements when at least half of the course instruction is online). In these blended formats, classes meet less often than is traditional since online education replaces a significant portion of in-class time. Because of their flexibility, some advocates argue that hybrid courses offer a flexible and efficient balance of high-touch face-to-face interactions in the classroom with effective online education.

The learning objectives, content, and academic challenge in a blended/hybrid course should be the same as the traditional class. The purpose of this course format is to effectively deliver content while providing flexibility to learn when and where it fits the student’s schedule and at a pace that enhances learning. Students need to understand that the decreased face-to-face contact in blended learning does not signify time off from class; instead, students engage differently in blended learning, sometimes working together in a classroom and other times working alone or together using online technology. Similarly, effective teaching in blended formats involves a high degree of interaction with students, both online and in face-to-face meetings during class or in traditional office hours. High-quality blended teaching, in other words, does not allow faculty to be absent from campus, but rather involves different formats of close student-faculty interactions throughout the course.

### ***Online Courses and Programs***

Online courses are those in which more than 80% of the course content is delivered online, typically with no or very minimal face to face. Online courses normally run on the same semester schedule as traditional courses, are led by a single faculty member, cover the same amount of material, and represent the same number of credit hours ([Babson Survey Research Group](#)).

In a recent survey, most chief academic officers report believing that the learning outcomes for online education are “as good as or better” than those for face-to-face instruction, but a consistent minority consider online to be inferior. Only 30.2% of chief academic officers believe their faculty accept the value and legitimacy of online education. This rate is lower than the rate recorded in 2004. They also overwhelmingly agree that online students need more discipline to succeed, and that lower retention rates in online courses are a significant concern ([Babson Survey Research Group](#)).

The 2010 report [Evaluation of Evidence-Based Practices in Online Learning](#) from the Department of Education indicates that:

- online learners, on average, perform modestly better than those learning the same material face to face, but the advantages observed for online learning conditions may be the product of aspects of those treatment conditions other than the instructional delivery medium per se
- blended/hybrid courses are more effective than completely online courses
- online teaching that is interactive has stronger positive results than online courses that require students only to work independently
- most of the variations in the way online learning is implemented do not affect student outcomes in a way that is statistically significant

In 2002, 71.7% of higher education institutions had some online courses. In 2012, 86.5% of higher education institutions offered online courses. In addition, 62.4% of higher education institutions now offer complete online degree programs rather than only a few isolated courses. Private nonprofit institutions have seen the largest growth in completely online programs, from 22.1% in 2002 to 48.4% in 2012 ([Babson Survey Research Group](#)). Currently, almost 200 completely online bachelors' degrees are offered by institutions and more than 350 completely online masters' degrees are offered. The completely online masters' degrees are offered almost exclusively by public universities ([Sloan-C Catalog of Online Programs](#)).

While online course offerings have expanded dramatically, the costs for these courses varies widely<sup>1</sup> – and Elon remains a comparative value in our summer online offerings. Elon's undergraduate tuition for 2013-14 is \$36,950. Since tuition allows a student to enroll in roughly 36-40 credits per academic year (e.g., 16+4+16), Elon's per-credit tuition is in the range of \$743-826/credit. Summer college at Elon in 2014 will cost \$450/credit hour.

By contrast, [Semester Online](#) is a consortium of well-known and respected universities – Boston College, Brandeis, Emory, Northwestern, UNC Chapel Hill, Notre Dame, Washington University – that are collaborating with online platform provider 2U to develop selective, small enrollment, for-credit courses. The courses are offered online to “high achieving college students.” (Note that both Duke and Wake Forest were initially part of Semester Online but are no longer listed.) Class size is approximately 20 students to promote meaningful discussions with professors and students. Semester Online promotes two primary demands for these courses: 1) students who are away from campus for a semester in a study abroad program and 2) students who will benefit from taking unique courses that are not offered on their home campuses. Semester Online is offering [eleven courses](#) for fall 2013, the majority in political science, history and business. Courses meet for 15 weeks, are 3 credits each, and cost \$1,400 per credit.

When comparing Elon to the two universities from the Colonial Athletic Association (CAA) with well-established online programs, Northeastern University and Drexel University, Elon remains a good value. Online courses at Northeastern cost approximately \$425/credits (converting a quarter hour to a semester hour) and at Drexel online courses range from \$707/credits to \$974/credits (converting a quarter hour to a semester hour).

It is noted that because Elon's current policy is that online courses must have been previously offered as a face-to-face course, faculty collaborating with Teaching and Learning Technologies typically spend 40 to 100 hours developing an online course.

### ***MOOCs - Massive Open Online Courses***

“MOOCs are classes that are taught online to large numbers of students, with minimal involvement by professors” ([What You Need to Know About MOOCs](#)). Although the earliest MOOCs were primarily in STEM fields, MOOCs currently span the academic spectrum. The dominant method of instructional delivery with MOOCs is a combination of instructor videos, quizzes or projects, online discussion threads, and a final exam. Assignments are either machine-graded or crowdsourced: students use rubrics

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<sup>1</sup> A study at Old Dominion University indicates that the design and development of online courses can cost up to \$25,000 per credit hour ([Online Course Development: What Does It Cost?](#)). This cost does not include the overhead costs of technology infrastructure, or extra features such as high-quality visuals or simulations. The faculty time developing an online course ranges from approximately 150 to over 800 hours, plus additional time from the instructional design and technology experts on the team. Some universities use in-house technology and staff to create online courses while others outsource that function to business that specialize in providing both platform and staffing for online education.

to evaluate each other's work. "That way a lone professor can support a class with hundreds of thousands of participants" ([What You Need to Know About MOOCs](#)). For example, in fall 2011, more than 160,000 students from almost 200 countries enrolled in an Artificial Intelligence course taught by Stanford professor Sebastian Thrum and Peter Norvig, a Google colleague ([Instruction for Masses Knocks Down Campus Walls](#)).

Three companies currently dominate the field:

- Coursera—is a Stanford spinoff that partners with [62 universities](#) and offers more than 300 courses (note that Coursera only partners with elite institutions—the members of the Association of American Universities or top five universities in countries outside of North America ([Coursera's Contractual Elitism](#)))
- edX—founded by MIT and Harvard—now has [10 additional partners](#) and offers at least 25 courses
- Udacity—founded by Stanford professor Sebastian Thrum—works with individual faculty rather than schools—currently offers more than [25 courses](#) primarily in computer science.

Coursera and Udacity are funded by venture capitalists who believe that MOOCs will be profitable in the future through a combination of modest tuition from students, advertising to sell products or services, data mining that sells student information to third parties, and sale of courses to other universities. edX is a non-profit start-up financed by \$30 million in pledges from Harvard and MIT, but it hopes to become self-sustaining by charging fees to participating schools and by making deals with third parties to get access to MOOC student information ([What Campus Leaders Need to Know About MOOCs](#)).

Although MOOCs have garnered considerable press coverage recently ([What You Need to Know About MOOCs](#)), they are not widespread. Only 2.6% of higher education institutions currently offer a MOOC and only 9.4% have MOOCs in the planning stages. The majority of institutions (55.4%) report they are still undecided about MOOCs, while almost a third do not plan to offer a MOOC. Surveys indicate that academic leaders remain unconvinced that MOOCs represent a sustainable method for offering online courses, but do believe they provide an important means for institutions to learn about online pedagogy ([Babson Survey Research Group](#)).

A report from Duke - [What does it take to prepare a Duke Coursera course?](#) – indicates that MOOCs require significant start-up costs. More than 600 hours of effort were required to build and deliver a single course, including 420 hours by the professor and a full-time IT employee to staff each course.

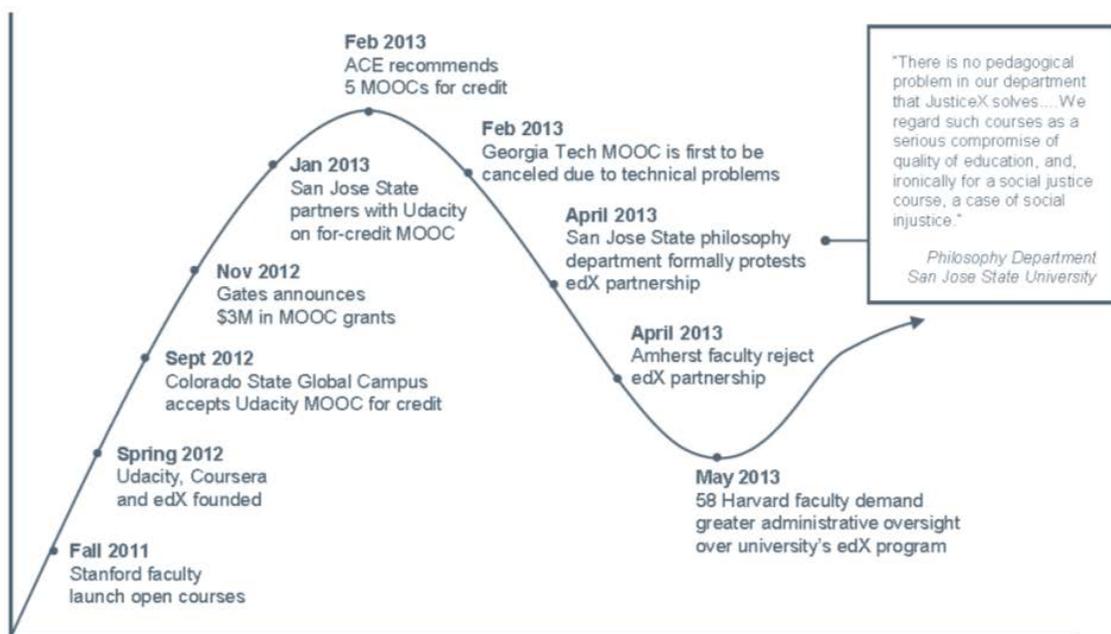
Despite the many hurdles facing MOOCs, some higher education leaders, including William Bowen (former president of Princeton) and John Hennessy (president of Stanford), maintain that some future version of a MOOC will indeed be a disruptive innovation that fundamentally reshapes the higher education sector, just as the media industry and publishing and music retail businesses have been overturned by rapid technological change. For this kind of disruption to occur, technology will need to be developed that can provide high-quality, customizable feedback on student work. No such tools exist currently, but Carnegie Mellon University, edX, and many other institutions are pouring significant resources into developing such tools for large enrollment courses, particularly in STEM fields. If these efforts succeed, then MOOCs may suddenly become a viable option for many students, forcing institutions like Elon to respond to competition from high-quality, inexpensive courses.

*In March 2012 Sebastian Thrum, the CEO of Udacity, predicted that “fifty years from now there will be only 10 institutions in the world delivering higher education and Udacity has a shot at being one of them.” ([The Stanford Education Experiment Could Change Higher Learning Forever, Wired, March 2012](#)) One year later Thrum was a bit more modest.*

“Upfront, I believe that online education will not replace face-to-face education, and neither is it supposed to.” ([Beyond MOOC Hype, Inside Higher Ed, July 2013](#)). Just one month later Thrun stated that “a medium where only self-motivated, Web-savvy people sign up, and the success rate is 10 percent, doesn't strike me quite yet as a solution to the problems of higher education. Are we going a step backwards? Perhaps. But, then again, we really want to solve the problem.” ([The MOOC 'Revolution' May Not Be as Disruptive as Some Had Imagined, The Chronicle of Higher Education, August, 2013](#)) Just one week later Thrun concluded that he had almost “found the magic formula” for how to produce and run online courses and that he had learned that “the computer program alone, a MOOC alone is not likely to be a good educational medium for large numbers of people, except for the truly highly self-motivated. To be successful, we need people on the ground to do things, to provide educational services.” ([Udacity CEO Says MOOC 'Magic Formula' Emerging, Inside Higher Ed, August 2013](#))

## Hitting the Trough of Disillusionment

Another Confirmation of the Technology Hype Cycle



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Source: Press releases and news outlets; Education Advisory Board interviews and analysis.

### Benefits of Online Courses

Scholars have identified a number of potential benefits from online courses, including:

- **Access:** A 2007 Sloan Consortium report ([Online Nation: Five Years of Growth in Online Learning](#)) indicated that the primary reasons universities offer online courses is the ability to improve student access thereby improving retention and degree completion.
- **Outcomes:** Online education works better for some students than others. A recent study of community college students by Columbia University ([Adaptability to Online Learning: Differences Across Types of Students and Academic Subject Areas](#)) indicates that online work is a challenge for the most vulnerable students, including students who had taken remedial courses or who had low GPAs.
- **Flexibility:** Advocates for MOOCs, and online teaching in general, often tout the flexibility students have to choose when and where to study, and online materials allow students to move quickly through or return repeatedly to course materials.

- **Efficiency:** Blended courses may allow institutions to more efficiently use classroom space and also may enable faculty to use their time with students more efficiently (less time presenting material, more time interacting).
- **Reputation:** A March 2013 report titled [Massive Open Online Courses \(MOOCs\): A Primer for University and College Board Members](#) suggests offering MOOCs can enhance reputation or provide “[brand extension](#)” to elite research institutions. It is also likely that offering a MOOC will attract students to for-pay courses and programs. Others see MOOCs (and other online programs) as a form of outreach to alumni.
- **Pedagogy:** The process of developing high-quality blended/hybrid courses may enhance all types of teaching. The course design process requires that professors become adept at matching teaching tools to learning goals and incorporating active learning environments. This innovative thinking can bleed over into other teaching methods so that as faculty familiarity and experience with digitally enhanced technology grows, their expertise will be applied in fully face-to-face classes (such as the “flipped classroom”) in which technology seamlessly supplements but does not replace any of the contact hours.

*Massive open online courses (MOOCs) may not yet be driving down tuition, but they're starting to kill the traditional lecture class. At Duke University, professors who teach MOOCs tend to go back and do a radical revision of their on-campus classes. "That's true for at least half the faculty who developed MOOC classes," said Lynne M. O'Brien, Duke's associate vice provost for digital and online education initiatives. She said this was no surprise: MOOCs free professors from constraints required by for-credit classes, like length and format. "People are free to innovate in ways you can't do with a typical course"([MOOCs Lead Duke To Reinvent On-Campus Courses](#)).*

### ***Impact of Online Courses on Elon’s Business Model***

As noted above, it is in this post-recession environment in which families are becoming more cost conscious about both where to attend college and how they can save money while attending ([Holding the Line](#)) that the possibility of high-quality tuition-free information is intriguing. Although most agree that information is not knowledge, delivery is not transformation, and testing is not assessment, the American Council on Education (ACE) ([American Council on Education Recommends 5 MOOCs for Credit](#)) has recommended five MOOCs for transfer credit:

- Algebra, University of California, Irvine
- Pre-Calculus, University of California, Irvine
- Introduction to Genetics and Evolution, Duke University
- Bioelectricity: A Quantitative Approach, Duke University
- Calculus: Single Variable, University of Pennsylvania

While states such as California and Florida initially pushed to award academic credit to students who succeeded in MOOCs offered by outside providers, recent developments suggest that politicians see no immediate need to let outside providers through the door ([The MOOC 'Revolution' May Not Be as Disruptive as Some Had Imagined](#)).

Others predict that MOOCs will increase rather than decrease costs because they replace inexpensive large lectures with expensive technology and an expectation of interactive small classes ([Why MOOCs May Drive Up Higher Ed Costs](#)) and that the development of MOOCs will increase the gap between elite and non-elite education decreasing access to education for the most at risk ([For Whom Is College Being Reinvented?](#)).

Several projects aimed at helping MOOC students navigate existing pathways to college credit have attracted little or no interest. Colorado State University-Global Campus ([\*A University's Offer of Credit for a MOOC Gets No Takers\*](#)) has seen no takers since offering last fall to award credit to students who performed well in a computer-science MOOC offered through Udacity. Likewise, the Council for Adult and Experiential Learning, which helps students translate nontraditional learning into college credit through its LearningCounts program, has not seen any students attempt to redeem MOOC certificates for credit ([\*The MOOC 'Revolution' May Not Be as Disruptive as Some Had Imagined\*](#)).

Although recent articles suggest that MOOCs may not be the disruptive force on higher education that was postulated even 6 months ago, MOOCs are still evolving, and their impact on global higher education is hard to predict. A June 2013 article in the New York Times ([\*Online Classes Fuel a Campus Debate\*](#)) reveals that universities are beginning to collaborate to develop and share their courses and technology, rather than working with outside providers. In this context, Provosts from the Committee on Institutional Cooperation, including members of the Big Ten and the University of Chicago, identified collaboration of online learning as an opportunity that would be of high value to their institutions.

[Note – On August 2, 2013, President Lambert and Provost House initiated a conversation with Herman Berliner, Provost at Hofstra and chair of the Colonial Athletic Association Academic Alliance's Provosts' Council regarding collaboration in the CAA. He agreed that this should be the top priority of the Academic Alliance.]

The combination of rising higher education costs and the development of emerging teaching and learning technologies make it necessary for Elon to prepare for changes in how families and students will manage the college/university experience. Elon expects that students could transfer more credits to the university from less expensive institutions, including online courses and MOOCs.

An analysis of transfer credits at Elon over the past eight years indicates that there has been a slight increase in the percentage of students entering Elon with transfer credits (39.8% in 2005 to 41.5% in 2013) and that the average number of credits per student has increased from 9.2 in 2005 to 11.1 credits in 2013. Interestingly, the percentage of students that earn transfer credits while at Elon has increased from 17.9% for the class that entered in 2005 to 23.1% for the class that entered in 2008. At the same time, the number of credits transferred back to Elon has stayed relatively constant at 8.2 credits. Finally, the average number of semesters to complete a degree at Elon has decreased slightly but steadily from 8.1 for the class that entered in 2005 to 7.95 semesters for the class that entered in 2008. The average number of credits each term has increased steadily from 15.6 in 2005 to 16.7 credits in 2012.

Because of the likelihood of increased transfer credits, Elon's registrar has prepared a report (Appendix D) on how Elon will deal with student's presenting more and more credits for transfer back to Elon and an institutional recommendation regarding awarding academic credit for MOOCs. Recognizing that learning can take place in various modes and places outside of the traditional college classroom, the Office of the Registrar proposes that, beginning Fall 2013, the University accepts the ACE recommendation for credit for MOOC courses that have a direct course equivalency at Elon University. In addition, if a student receives credit for a MOOC from a regionally accredited institution, this credit will transfer as does any other credit. If a student takes a MOOC certified by ACE and gains knowledge and skills that lead to a passing score (70) on a comprehensive final examination, the student will be awarded credit by examination. Only MOOC courses with a direct equivalency to Elon courses will be granted credit. Students who successfully complete a course through Coursera earn a Verified Certificate issued by Coursera stating that the individual has verified their identity while completing work in the course. The course records page from Coursera would need to accompany the certificate for credit to be awarded.

The [Undergraduate Catalog](#) indicates that a minimum of 60 or more hours of the total 132 credits hours must be completed at Elon to earn an Elon degree. In addition, the last term before graduation must be at Elon. Thus, policies are already in place to protect the core functioning of the university. While Elon does not anticipate an initial rush to take MOOC classes for credit, institutions are already scrambling trying to decide how to handle these new challenges. With major university systems joining the online education movement and the number of American Council of Education (ACE) accredited online courses expected to rise, it is just a matter of time before transfer credit becomes a standard, even for some massive online courses.

If each year 5% of Elon students choose to take a semester away from Elon to earn transfer credits online from other institutions or through MOOCs, the impact on revenue is almost \$5 million/year. There are some strategies that will allow students to deepen learning in this setting. A strategy to encourage students to “Earn 2” degrees at Elon could entice students to take all of their credits at Elon and/or earn more than the required 132 credits. Elon currently does not award two undergraduate degrees to a graduate. Students who qualify for more than one degree must select the primary degree for which they will receive a bachelor’s degree. Elon’s commitment to delivering impact and value in its educational programs could be enhanced by promoting the ability to earn transfer credits toward an Elon degree through online courses and MOOCs at the same time allowing students to earn two degrees by completing two majors and 160 credits. Likewise, the value of an Elon degree could be further enhanced through innovative 3+2, 4+1, and 4+2 programs for students who wish to pursue two Elon degrees—a great undergraduate experience followed by a professional master’s degree.

As Elon ventures further into the world of online and digitally-enhanced education, it is imperative that all courses/programs maintain the highest quality. In striving to do so, we can be guided by best practices for online education developed by the [Sloan Consortium](#) in their Quality Scorecard for the Administration of Online Education Programs. The benchmarks include criteria for: institutional support; course structure, course development and instructional design, technology support; social and student engagement; and evaluation and assessment. An additional resource is the [“Quality Matters”](#) program, an organization that outlines standards for online education and provides a peer-review process to certify the quality of online courses.

### ***Impact of Online Courses on Faculty Members***

Digitally enhanced and online courses place additional demands on the faculty who teach them. Academic leaders report that it takes more time and effort for a faculty member to teach an online course than to teach the same course face to face. In 2006, 40.7% of academic leaders reported that it required more faculty time and effort to teach an online course. In 2011 the percentage had grown to 44.6%, with only 9.7% disagreeing. ([Babson Survey Research Group](#))

The additional demands on faculty are not about substantive content knowledge. Instead, developing and teaching a digitally-enhanced course requires specific sets of skills that faculty must acquire in order to be successful in a new, often unfamiliar format for learning and teaching. The additional work comes only in part from the need to master new technologies; most of the additional work likely will be devoted to rethinking teaching and learning to fit the capabilities of the new format. In order to help compensate for these additional demands, Elon and many schools help faculty developing new digitally-enhanced courses through extra compensation, summer stipends, or course release along with expert assistance provided by staff from Teaching and Learning Technologies. Elon will need to maintain a flexible and responsive approach to supporting faculty who are navigating the path from face-to-face to digitally-enhanced teaching.

Implementing new kinds of teaching and learning can be uncomfortable both for faculty and for students. Faculty members trying new techniques may receive lower student evaluations; students may push back against the distinct demands of the format, which often requires students to work much more independently than they do in traditional courses. Traditional forms of teaching evaluation also may need to be adapted to match the dynamics of new teaching situations. Elon should gather data about both student learning and student perceptions of teaching in order to assess the quality and efficacy of digitally-enhanced, as well as face-to-face, teaching, learning, and courses.

For these reasons, Elon must cultivate a faculty and student culture that supports and encourages experimentation in teaching and learning. Not all experiments work, and although we should aim for success every time, we need to be willing to support promising yet ultimately unsuccessful ventures. Policies that protect untenured faculty members working through innovations are particularly important.

Elon also must remain attentive to new issues that may impact faculty as technologies and teaching evolve. Some leading higher education scholars, including Andrew Delbanco from Columbia University, have argued that emerging forms of online education represent an “existential threat” to faculty.<sup>2</sup> At some institutions, such as San Jose State University, some faculty have made fundamental shifts in their teaching roles, taking on the role of tutor to students enrolled in a MOOC rather than teaching that course themselves as they have in the past. At the same time, William Bowen, the former president of Princeton University, has recently argued that: “In a less complex age, it may have been sensible to leave almost all decisions concerning not just what to teach but how to teach in the hands of individual faculty members. It is by no means clear, however, that this model is the right one going forward.”<sup>3</sup> Bowen suggests that traditional faculty roles may need to be “unbundled” in the future so that different faculty carry out specific tasks, such as mentoring or grading, that make best use of their distinct expertise. While we do not foresee such changes coming at Elon, we should look ahead to anticipate whether and how teaching and learning may evolve in the future – and we should support our faculty in being successful no matter how they teach.

### ***Legal Issues***

There are undoubtedly a host of legal issues that the university would need to address with regard to digitally enhanced teaching and learning courses. Although many if not all of these issues already exist in the face-to-face context, going online increases the need for clear and thoughtful policies. The legal issues that arise most often are:

- Copyright -faculty and students alike will require thorough training in the requirements of copyright law
- Intellectual Property - it is crucial to make clear whether course materials developed for MOOCs, online courses, and hybrid courses are the intellectual property of the university or of the offering professor
- Accessibility - offering courses online opens up a whole new world of accommodation issues for students with various kinds of learning disabilities
- Privacy - online learning tools can create new contexts for FERPA application

“State Authorization” expectations that each institution offering distance education courses demonstrate that it has the proper approval(s) in each state in which it serves students will need to be addressed as well as licensing agreements with software providers such as Moodle and Adobe Connect.

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<sup>2</sup> Andrew Delbanco, “Discussion by Andrew Delbanco,” page 137, in *Higher Education in the Digital Age* by William G. Bowen (Princeton University Press, 2013).

<sup>3</sup> “Prospects for an Online Fix,” page 65, in *Higher Education in the Digital Age*.

## ***Elon's Current Offerings and Resources***

Elon University's engaged learning program is currently rooted in a face-to-face instructional model. The university's 55 online courses (44 online courses were offered in summer 2013) are available during Summer Session I and enrollment is open only to Elon students. In 2003, a faculty committee exploring the future of online education at the university recommended this pathway, which was implemented in the summer of 2008. However, assets of online education are present in many of our courses throughout the school year. The faculty frequently leverages the Internet and its ability to expand knowledge and connect us to the world in their courses. These assets of online capacities and our desire to create engaging teaching environments that result in the global citizens we seek our students to become are what prompted a reconsideration of online education at the university.

Examples of how Elon faculty and staff currently use emerging teaching and learning technologies are summarized in Appendix E and can be found on the [Instructional and Campus Technologies' blog](#). The technology resources available to faculty and staff are summarized in Appendix F. In addition to these tools, Teaching Learning and Technologies (TLT) has developed a [service catalog](#) that highlights technology tools that can be used for teaching and learning. The catalog is always a work in progress, as tools change on a regular basis.

## ***Opportunities for Digitally-Enhanced Teaching and Learning and Discovery***

While the emergence of MOOCs and other technological innovations present real challenges for the university, digital tools also offer at least five new opportunities for Elon to deepen our mission as a residential, liberal arts university.

1. Pursuing strategic partnerships and consortia that allow Elon students to take courses that the University does not currently offer but that complement our existing curriculum. This typically would involve Elon faculty with appropriate expertise teaching face-to-face portions of (and grading in) courses that are primarily taught by an off-campus faculty member. For instance, Kristina Meinking in World Languages has taught Elon students in an elementary Greek sequence of courses through the Sunoikisis Consortium and the Center for Hellenic Studies. In the 2012-2013 academic year, Professor Meinking taught face-to-face portions of these courses at Elon (approximately 66% of class time, and 100% of the grading) while students spent the other portion of course time participating in interactive online lectures and doing synchronous online work with students at other universities under the supervision of Professor Kenny Morrell, Associate Professor of Classics at Rhodes College.
2. Allowing Elon students who are off-campus (studying abroad, completing an internship, and so on) to enroll remotely in traditional on-campus courses at Elon. In these instances, off-campus Elon students would use digital tools like Adobe Connect to attend and participate fully in face-to-face class meetings on campus. The same technology or other tools would be used for student group meetings and to facilitate student-faculty interaction outside of class time, and to access Belk Library, the Writing Center, and other academic resources. These off-campus students would be held to the same standard as on-campus students, including all of the same deadlines, expectations for quality of work and class participation, and so on. This is not likely to be a widely used alternative, but it could be essential for some students who are pursuing majors that have tight curricula, who are double majors, or who have other scheduling constraints that otherwise would make studying away difficult.
3. Systematically creating or adopting digitally enhanced course materials to strengthen student learning on campus. This happens regularly, of course, but this work often is done by an individual faculty member. A new initiative in this area could have faculty work together to strategically identify courses

(or portions of courses) within a major or a program where students could learn most deeply and most efficiently from digital resources. In content-heavy courses, this might involve developing or acquiring high-quality lectures on a series of topics that all students in multiple sections of a course could study outside of class, freeing up face-to-face time with faculty for higher-order intellectual work. In other courses, this might involve developing or acquiring digital tools that provide high-quality, customized feedback to students on their work, allowing students to receive more feedback on their work than is currently possible, and freeing up faculty from routine grading to have more meaningful interactions with students.

4. Exploring how new digital tools might enable Elon students to integrate their learning from what are currently often distinct parts of their experience as a student—their major, General Studies, Experiential Learning Requirements, co-curricular activities, and so on. Emerging research demonstrates that this kind of integrative work intensifies the effect of separate high-impact educational practices like undergraduate research and study abroad. This kind of integration, however, always has been very difficult to facilitate face-to-face; when it happens, typically a long-term mentoring relationship exists between a student and a faculty or staff member. New digital tools and formats might enable some or much of what happens in those mentoring relationships to go to scale, for students to reflect carefully on individual experiences and on the connections between experiences over time, and for faculty and staff to provide guidance and support to students throughout that process. If Elon could pioneer this approach, we would significantly enhance student learning and development.

5. Considering how to adapt Elon’s academic programs and curricula to enable even more student-initiated learning. Leading scholars of learning and technology, including Henry Jenkins at MIT and John Seely Brown from USC, contend that online environments have created what Brown calls a “new culture of learning.” This new “participatory culture” (to quote Jenkins) is quite different than a traditional university, allowing many more opportunities for students to explore knowledge on their own initiative, rather than consuming pre-packaged courses. A Lumen Scholar project or a robust undergraduate research experience are examples of this participatory culture that is flourishing at Elon. These experiences, however, are available only to a small fraction of Elon students. To create a “new culture of learning” for all students, Elon would need to consider ways to scale up undergraduate research, to expand and promote the independent major, and to support both students and faculty in this new paradigm.

Seriously addressing these opportunities will be difficult. We not only will need to tap the creativity and expertise of our faculty, staff, and students, but we will need to think carefully about issues including faculty’s roles and rewards, curricular flexibility and revision, and intellectual property. This work also will require careful planning, flexible implementation, and new resources. It won’t necessarily be easy or inexpensive, but each of these themes provides powerful opportunities to enhance student learning at Elon.

### ***Conclusion***

MOOCs currently overwhelm the conversation about online teaching and its potential impact on higher education. Carol Geary Schneider, from the Association of American Colleges and Universities has argued that MOOCs amplify the “least productive pedagogy” in American higher education. However, Schneider believes that digital tools have the potential to produce more engaging education and more meaningful student-faculty interactions. She concludes that “it would be a tragedy if you substituted MOOCs in their current form for regular courses, but it would be a creative breakthrough if you take advantage of MOOCs and other forms of online coverage to make more space and more time for students to apply concepts and methods appropriate to their field to real problem” ([\*Beyond MOOC Hype, Inside Higher Ed, July 2013\*](#)).

The costs in time, money, and human capital involved in developing and offering a MOOC are significant, and its current financial return non-existent. In contrast to the elite schools with large endowments that first signed with Coursera or edX, Elon might not benefit from the same “branding” benefit that offering a MOOC can provide to a school like Harvard, MIT, or Stanford.

Having said this, Elon needs to keep up-to-date on developments in the MOOC world. MOOCs are evolving rapidly, are attempting to develop the capacity for meaningful student interaction, and can be efficient and effective vehicles for pure content delivery. In addition, as demonstrated at San Jose State ([California State U. System Will Expand MOOC Experiment](#)), MOOC components may prove extremely useful as supplements to face-to-face courses when pieces of MOOC materials are offered or marketed separately as part of a “flipped classroom.” MOOCs, or whatever they evolve into, are a phenomenon that cannot be ignored.

It is critical that Elon continue to encourage the experimentation and development of emerging technologies in teaching and learning and discovery. At the same time we must continue to focus on our commitment to academic challenge and on highly engaged face-to-face teaching and learning. Just like all traditional courses at Elon, online course and blended/hybrid courses must be approved, evaluated and assessed by the normal faculty processes and must reinforce the transformative mission of Elon.

In this context, faculty that have already demonstrated skills and experience in providing digitally enhanced teaching and learning should be selected to further develop their courses and serve as mentors and experts for developing additional faculty. Provost House proposes that 3-6 faculty or teams of faculty be tapped and offered extensive, flexible support from the university’s Center for the Advancement of Teaching and Learning and Teaching and Learning Technologies to do this work during the 2013-2014 academic year. Following development of pilot programs, a call will be made to all faculty for proposals on new offerings. A committee consisting of members of the Academic Technology and Computing Committee and the Provost’s Advisory Council will determine projects to support.

As we explore and develop emerging technologies in teaching and learning for summer, fall, winter, and spring, all of these endeavors must include support for faculty and staff willing to be change agents as well as for students enrolling in online courses. And finally, all courses and all of our efforts must be at a level of excellence that we have come to expect at Elon.

*“There is still huge value in the residential college experience and the teacher-student and student-student interactions it facilitates. But to thrive, universities will have to nurture even more of those unique experiences while blending in technology to improve education outcomes in measurable ways at lower costs. We still need more research on what works, but standing still is not an option” Thomas Friedman, [The Professors’ Big Stage, New York Times](#), March 5, 2013*

### **Additional Discussion Questions:**

1. What are your general reactions to the paper? What surprised you and what seemed realistic or unrealistic for Elon's future?
2. How do you think technology and online courses could complement learning at Elon?
3. What should not change about an Elon education?
4. How should Elon respond to concerns about the cost of higher education?
5. How do you see Elon students' course-taking-patterns changing in the future? Will more students want a 3-year degree?
6. How can Elon lead the way in blending technology with engaged learning?

7. What advice would you have for the senior staff as we consider these issues? How must we evolve our business model? What does all of this mean for Elon's financial model, and our marketing and admissions messages? How might we adjust to meet the needs of people who may desire a three-year, two-year, or even a one-year residential experience combined with online options?
8. How can Elon's academic program leaders respond to the anticipated change and stay ahead of the curve? Should we adjust some programs, expand, or add new components? Are strategic graduate programs ripe for incorporating emerging teaching and learning technologies?

## APPENDIX A

### On Arriving, Deepening and Sustaining: Key Questions about Elon University's Future

President Leo M. Lambert

Fall 2005

#### Arriving

Several years ago I visited a philanthropic foundation in Florida, and was hosted by a senior officer who opened our conversation by saying, “Dr. Lambert, we make gifts only to institutions that have *arrived*.” It was quite apparent he was referring to institutions that had developed national reputations, admitted students on a very selective basis, and held the traditional hallmarks of excellence that are assumed of fine institutions of higher learning, including excellent libraries, nationally-accredited professional programs, prominent alumni, and significant contributions to scholarship by faculty members. His off-the-cuff assessment of Elon was that it was an institution “on the rise,” but that it had not yet arrived. In sharing the foundation officer’s statement with students, faculty, staff, trustees, volunteer boards, parents, and alumni since, one frequent reaction to it is that it is not in the character of Elon to say “we have arrived.” Elon’s culture is about striving to be better, innovating rather than imitating, and resisting complacency. We hope that success never diminishes those values.

Nonetheless, the time has come for Elon to recognize and claim ownership of the distinctive place it has risen to on the landscape of American higher education. When Newsweek-Kaplan named Elon one of “America's 25 Hottest Colleges” this fall, it based its selection on feedback from guidance counselors and other college experts who have been observing the university's remarkable transformation over the past decade. The U.S. News & World Report *America's Best Colleges* guide, which listed Elon #39 among Southern master's-level universities 10 years ago, now ranks Elon #6. Similarly, the top-selling Princeton Review and Fiske college guides now list Elon among the nation's best and most selective universities. The National Survey of Student Engagement, the most comprehensive assessment of effective practices in higher education, consistently rates Elon among the top 10 percent of colleges and universities on key benchmarks of quality. Elon sends more undergraduate students to study abroad than any other master's-level school in the nation. Our strong volunteer and civic engagement programs placed the university among the nation's top 81 schools in Princeton Review's “Colleges with a Conscience” guidebook, a ranking produced with input from college presidents and other top administrators across the nation.

Elon's success in the college ranking industry has been reinforced by students and parents, who have been quite effective in spreading the news about Elon's quality. They have shared the news about Elon's outstanding graduation and freshman retention rates, which now rank in the top ten percent of the nation's master's-level universities. The result has been a remarkable surge of interest by prospective students. Since 2002, the number of applications for admission has increased more than 38 percent. More than 9,000 students applied for the 1,250 positions in this fall's freshman class. With an acceptance rate of about 41 percent, Elon is now a highly selective private university.

Elon faculty and academic programs are also receiving national attention. The Martha and Spencer Love School of Business was awarded AACSB-International accreditation, and the School of Communications will host an ACEJMC accreditation site visit team in fall 2005. Among the special academic initiatives that are bringing recognition are the Elon Center for Public Opinion Polling, the National Campaign for Student Political and Civic Engagement, Project Pericles, Campus Compact, the Kernodle Center for Service Learning and Elon's “Imagining the Internet” partnership with the Pew Internet & American Life Project.

Our graduate programs in physical therapy (D.P.T.), business (MBA), and education (M.Ed.) are increasingly selective and distinctive, and the new School of Law aspires to create a new model of legal education in the United States that emphasizes community engagement and civic leadership. Elon's Phoenix athletics program has successfully completed the transition to NCAA Division I and now competes as a member of the prestigious Southern Conference with institutions such as Davidson, Furman and Wofford, which share our ideals about the nature of the student-athlete experience. Finally, our beautiful campus and land resources are tremendous strategic assets. When Princeton Review cited it as the second most beautiful campus in the nation, we more fully realized what a tremendous resource the campus is in recruiting students, faculty and staff. Since that time, the campus has been formally designated as a botanical garden.

Elon has indeed arrived at an enviable position, ready to chart an important new course at a time of great challenge to higher education. While many colleges and universities are experiencing declining graduation rates, Elon's rates are among the best in the nation ... and rising. While other schools are facing criticism that graduates are unable to perform in the real world, Elon has found ways to connect students with the hands-on experiences that give them a special edge in the marketplace. And while spiraling college costs are making headlines, Elon has used financial efficiency and good strategic planning to maintain a bargain position, with total costs nearly \$4,900 below the average for other top-10 private Southern universities.

## **Deepening**

In December 2004, just prior to the senior staff mid-year retreat, I convened a group of approximately 35 early to mid-career faculty and staff to discuss the changes that have taken place at Elon over the course of the past five years (and especially the ways students have changed), to ponder what lies ahead for Elon beyond the New Century@Elon strategic plan, and to help senior staff better understand challenges faced by faculty and staff in their daily work.

One of the most useful metaphors that was invented by a participant in that meeting was prompted by the visual aid of a large campus map. On the map, property owned by the University was colored green, while adjacent land not owned by Elon was white. The comment offered by the participant was "Elon should focus more on making the green greener rather than focusing on filling in all the white space." Obviously, this was not a statement about land acquisition. It was rather a statement about focusing future attention on deepening existing programs, making distinctive programs even more innovative, and making good programs excellent. This is not to say, of course, that Elon will never add another new program, department, or school. It was also not a statement advocating stagnation or maintaining the status quo. This astute comment did suggest that at this stage of our evolution, the institution's progress and momentum could be sustained by making investments in existing, strategically-important programs. An Elon student can best explain why this university is enjoying unprecedented success. Junior Geoffrey Lynn, a chemistry major from Deland, Fla., is the first Elon student to receive the prestigious Goldwater Scholarship, awarded to outstanding students in math, natural sciences and engineering. When Newsweek asked to interview a student for its "Hottest Colleges" issue, we asked Geoff to explain his Elon experience. Here are excerpts from his response:

*"It's about working with your peers and professors to apply knowledge and theory outside of the classroom. When I talk to students at other universities, they tell me about their assignments and work, and it seems like school is something distant from their real-life objectives. It shouldn't be that way, and it's not at Elon. School is what you do at Elon, and you learn how to have fun with it ... Whether it's an assignment, research idea, or a volunteer activity, you can always find students discussing their work and ideas outside of the classroom with sincere enthusiasm ... As for some examples: I conduct all phases of research with my faculty mentor; we plan the*

*experiments, conduct the experiments, and analyze the results concomitantly. From there, we seek to publish our findings in peer-reviewed journals, or present our work at research conferences. In my two years at Elon, the undergraduate research program has provided me with two semesters worth of research grants, and they have provided the finances for me to attend five professional conferences. I was able to present my work at all but one of the conferences. And it's not just isolated instances around campus that you find these opportunities. All types of opportunities exist across all of the disciplines, and they are all aimed at providing students with a working knowledge.*

Geoff has effectively outlined everything that is right about Elon's approach to teaching and learning. While many universities promote student engagement in marketing materials, all of our student surveys and independent program quality studies tell us that Elon is one of the best in actually "walking the talk," blending academics and co-curricular programs into a seamless learning experience. It is clear that our best strategy for the future is to concentrate on enhancing existing strengths, making sure that all Elon students, no matter what their majors or abilities, have the kind of experiences Geoff describes. If we are to be an effective national leader in engaged learning, we must enrich and deepen what we do best.

We have a good idea about where to start:

- We need to endow the many programs that involve students and faculty in research activities and engaged learning projects. The faculty and students who work together on the kind of experiences Geoff describes are hungry for expanded support. They are doing amazing things with minimal resources, and will make excellent use of additional funds.
- We intend to expand our efforts to internationalize the campus, expanding the world view of on-campus programs and giving more students access to study abroad experiences.
- We need to endow more opportunities for faculty development, summer support, and sabbaticals to keep the Elon faculty at the forefront of their fields and provide funding for faculty and staff to make contributions on the national stage through professional activities.
- We must increase our outreach to employers and organizations so more students can obtain life-changing internship experiences.
- We must more fully fund volunteer service and leadership programs that leverage the incredible energy and altruism Elon students bring to solving social problems.
- We must expand scholarship programs, giving deserving students of all means and backgrounds the opportunity to attend Elon. Scholarships for students with special talents in academic fields, the arts, athletics and other areas will be especially important to ensure a rich and diverse student body. The number of high school graduates will peak in 2008 and students of color will make up 80 percent of the increase. Elon's traditional pool of prospective students will not increase significantly, and efforts must be made to provide financial assistance for the growing number of students who lack the means to attend a private university.

Another challenge the University must face is to articulate to our many external publics the value of a liberal arts and sciences education and its relevancy to a 21st century democracy. The aims of a liberal arts education—critical thinking, persuasive communication, quantitative and scientific reasoning, understanding of world cultures and languages, the cultivation of the love of learning—are enduring values at Elon that we as a community must constantly express.

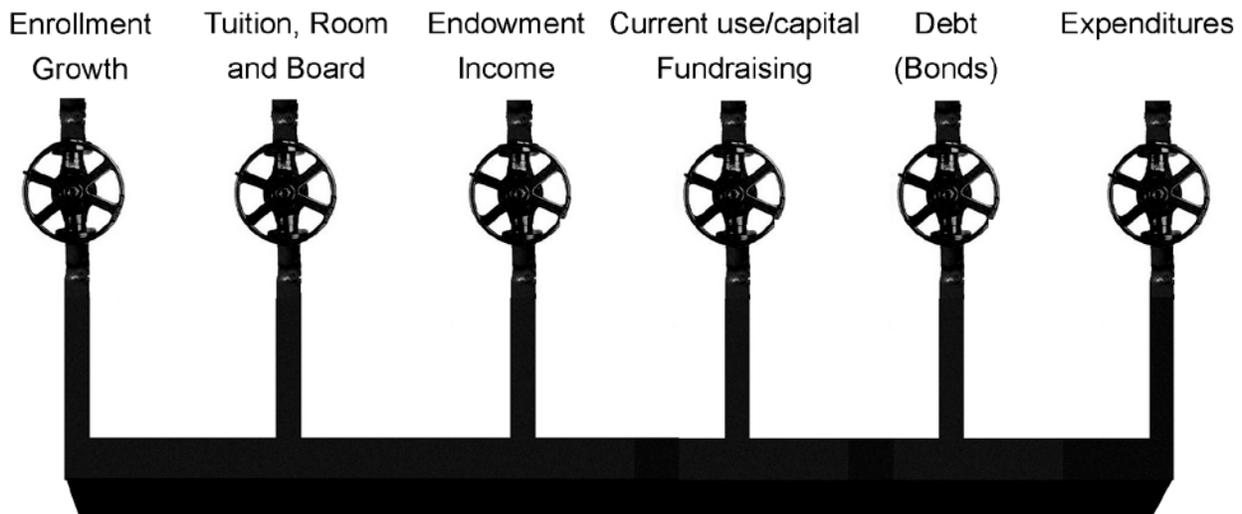
## **Sustaining**

President Lambert's winter 2013 Magazine of Elon column ([\*The coming crises in higher education\*](#)) describes the current state of higher education.

As a university that is fulfilling its destiny, Elon stands at a pivotal point in its history. The pieces are in place to lead the way to a new definition of quality in American higher education. We have a good idea about the next strategic steps that need to be taken – deepening our programs and fully delivering on the promise of quality that draws thousands of students to this university.

The limiting factor is an inadequate resource stream. Elon is far too dependent on tuition revenue and enrollment growth, and we are fast approaching the day when substantial increases in those two areas will be impractical. **Eighty percent** of Elon's operating revenue comes from tuition, room and board, compared with 47 percent at other top private universities in the South. At the same time, our budget is inadequately supplemented by an endowment that is much smaller than levels at peer institutions. Investment income makes up about **7 percent** of Elon's annual budget compared with 29 percent at other top Southern private universities.

To understand our challenges, it is helpful to walk through a brief primer on Elon's finances. I liken it to a series of valves that control the budget. Think through this model and consider the benefits and consequences of adjusting each valve:



A few comments about the valves:

- **Enrollment growth** – Growth has been synonymous with quality enhancements at Elon. Most important new initiatives to add quality to the institution (improvement of salaries, reductions of teaching loads, increases in library acquisitions, maintaining the best technology, expansion of fellows programs, new faculty and staff lines, additional sabbaticals, to name but a few) have been funded by tuition revenue growth. **Growth has occurred both by planned increases in the size of the student body and increases in student retention.** If growth continues at the current pace, the current physical plant (Belk Library, McMichael Science Building, faculty and staff office space) will become overtaxed, necessitating additional facilities expansion. In addition, **Elon’s prized sense of institutional community may become strained if the institution grows too large.**
- **Tuition, room and board** – **At a total annual cost of about \$25,000**, Elon is perceived as a great value. Private competitors in the Southeast (Furman, Wake Forest, Richmond, Davidson, etc.) are \$7,000-15,000 more expensive. However, the flagship state universities, with lower costs, remain significant admissions competitors.

- **Income from endowment** - Elon's **endowment is one-quarter to one-twentieth the size** of those at private peer institutions. The reasons are many:
  - Elon has not had the benefit of a transformative gift, such as those enjoyed by many of our peer institutions decades ago. Those schools benefited by the power of market growth, which dramatically increased the size of their endowments.
  - Elon has a relatively young alumni body, and the older alumni base is not wealthy.
  - Elon's location in a smaller community has limited its access to support from larger corporations.
  - Our fundraising in recent years has been focused on building new facilities – an important strategic decision as part of repositioning the university. Endowment building will be the principal focus of Elon's next major campaign.
- **Current use/Capital fundraising** – Annual fundraising is a powerful force in any college budget process. Each \$1 million raised is the equivalent of the income from a \$20 million endowment. Capital fundraising has been critical to the growth of Elon's outstanding physical plant. Similar success in the Elon Fund and Elon Athletics Fund have resulted in significant increases in the level of funding available for the university's annual operating budget. Still, Elon lags behind peer institutions in supplementing the annual budget with cash gifts. Less than three percent of the budget comes from annual gifts.
- **Debt (Bonds)** - Elon's bond debt totals approximately **\$50 million dollars, and the debt service is approximately 6% of the university's budget**. While this is a manageable figure, our bond capacity over the next several years has limitations beyond what we have already planned for new student housing.
- **Expenditures** – Spending at Elon has not been profligate or wasteful, and every effort has been made to ensure that each new budget dollar has maximum impact on campus.

Moderating enrollment growth and building a stronger endowment revenue stream are the central challenges in providing for a secure future for Elon. We need new thinking and creative strategies to find ways to expand Elon's endowment over the next decade while slowing enrollment growth and keeping tuition affordable.

Building a larger endowment is a daunting task and will require the contributions and creativity of the entire community. We must achieve the same high level of focus, discipline, planning, and commitment that Elon has applied to accomplishing other monumental goals.

### Discussion Questions

**Please help us find answers to these important strategic questions:**

- If you visit Elon in 2020, what values and attributes of today's Elon would you want to have been preserved? Also, what would you hope to find in 2020 that is not at Elon today? How would you go about making that happen?
- In the grand scheme of things, have we arrived at where we want to be? Has the scope of the modern Elon University been defined as a mid-sized liberal arts university with focused, distinctive, and excellent professional and graduate programs, a national reputation for student engagement, and a market-niche serving students with B+/A- high school records and with middle 50% SAT in the 1100-1300 range?
- How do we avoid complacency and maintain the innovative spirit that has been so central to our success?
- Elon has rapidly moved up *U.S. News and World Report* rankings in the “Southern Universities” category. We were ranked 39<sup>th</sup> in the 1996 rankings and 5<sup>th</sup> in the 2006 rankings. Wake Forest held the #1 position in that category from 1983-1994, when it moved to the “National Universities” category. The University of Richmond then held the #1 position since 1994, but

will be ranked in 2006 as a “National Liberal Arts” institution. Is it our destiny to be “channeled” into one of those other two categories, or will we pursue a distinctive, more hybrid-like “third path”? How will that third path be characterized?

- Is this the time in Elon’s evolution to focus even more fully on deepening quality, much as we have done with pursuing AACSB International and ACEJMC accreditations and a Phi Beta Kappa chapter?
- A premier program of international education and top-rated pre-medical and pre-law programs have been suggested as prime foci for “deepening”? What other examples can you suggest and defend?
- We have had great success with our Elon Experiences: study abroad, leadership, service learning, undergraduate research and internships. What would you recommend as the next level of quality in this area? Should we add another experience (what would it be?) or are there ways we should deepen the existing experiences?
- The quality of Elon’s student body continues to rise. SAT scores for the Class of 2009 average above 1200 for the first time in our history. Are Elon students being sufficiently challenged academically?
- Think of the budget valves to answer these specific questions:
  - How concerned should we be about enrollment growth?
  - How much elasticity is there in our cost? How do we find the right price point?
  - What are the most compelling messages we can bring before donors as we strive to build Elon's endowment?
  - How specifically can Elon further develop a culture of philanthropy in our community? What are the roles of trustees, alumni, faculty, staff, students, parents, and friends in such a long-term endeavor?
  - Elon plans to build new housing and dining facilities in order further develop the residential character of the campus by issues additional debt or other alternative financing. Other capital projects include the Academic Village Pavilion #5 (\$1.5 million) and the Academic Village Rotunda Building (\$6 million) and a 1,500 seat auditorium (\$8.0 million), all of which must be fund raised. How would you advise the Board of Trustees and the president about balancing facilities needs and endowment needs as we build the case for the next campaign?

## APPENDIX B

### Achieving 100% Access to a Global Experience

As part of Elon's efforts to prepare students to thrive in the 21st century, the Elon Commitment strategic plan includes as one of its main objectives to achieve 100% access to a global experience for students. To be successful, informed citizens of the world, students today must understand and interact with people of different cultures, faith backgrounds, and languages.

Currently, 72 percent of graduating seniors have participated in our study abroad program, which makes Elon the #1 master's-level university in the nation for the number of students who study internationally. By 2020, we want to give all students the opportunity to have a global experience, either domestically or abroad. The launch of Elon's Study USA program last fall will play a critical role in meeting this goal. The components and challenges of meeting this goal, particularly the financial challenges, are outlined in this paper.

Elon defines "access" as the elimination of financial or institutional obstacles for students who want a global experience. We define a "global experience" as a high-impact academic course for credit that includes at least seven days away from campus, as well as preparation for and examination of cultural differences through intentional interactions and follow-up reflection. These global experiences may occur abroad or in a variety of rural and urban locations within the United States.

The university's Isabella Cannon Global Education Center spearheads our efforts to engage students with the world. Approximately 74% of Elon's 2012 graduates had a global experience (72% studied abroad and another 2% participated in Study USA). Elon's January Winter Term continues to be the most popular time for global experiences. In 2012-2013, 56% of the 1,239 students who engaged in a global experience did so during Winter Term, while 35% participated during fall or spring semester, and 9% traveled during the summer. Elon seeks to gradually move toward a more balanced mix of 45% student participation in Winter Term, 40% during fall or spring semester, and 15% in the summer.

#### The cost of 100% access to a global experience

One of the biggest challenges to achieving 100% access to global study is meeting the financial needs of students who without assistance would not be able to participate. Elon must significantly increase its financial aid resources, through endowed scholarships in particular, to give all students access to a global experience.

For 2012-13 there were **880** graduating students who completed a Global experience and **310** graduating students who did not complete a Global experience. The 310 graduating students not completing a Global experience included 62 athletes, 117 students from North Carolina, and several departments with higher than expected percentages (Music Theater and Exercise Science to name two). There were 252 need-based graduating students who did have a Global experience and 135 need-based graduating students who did not complete a Global experience.

Over the past three years, approximately 45 graduating athletes each year did not have a Global experience. A program is in place, requiring an additional **\$75K in funds**, to have each graduating athlete complete a Global experience.

The projected increase in enrollment will result in a graduating class of 1,358 in **2020**. Assuming that the current participation rate of 74% continues, 353 additional seniors could need financial support to

reach 100% participation in a global experience. The program for student athletes is expected to decrease the number to approximately 300 graduating students.

Based on a 2020 goal of **90% participation rate and a 50% coverage of cost** (a 100% participation rate is not possible because some students cannot and others should not participate), the following steps will be taken.

- \$125,000/year of new funds will be budgeted for 3 consecutive years to a scholarship fund in the Isabella Cannon Global Education Center to support global experiences (there is currently approximately \$120,000/year in scholarship funds available for distribution)
- \$75,000/year of new funds will be budgeted to support a global experience for athletes
- funds from the scholarship fund in the Isabella Cannon Global Education Center will be distributed to students with need based on the Free Application for Federal Student Aid (FAFSA) - Elon's current practice is to classify students that have more than \$10,000 in need as with "need" - for 2012-13 approximately 36% of Elon students were determined to have "need" (of 5,209 undergraduates; 2,563 applied; and 1,834 were determined to have "need").

In addition, the following reallocation will take place, which will have a positive impact on the participation rate.

- \$264,000/year will be reallocated to support a global experience - funds currently allocated for Fellows programs (\$200,000 - a onetime \$1,000 grant to support research, service, leadership, an internship or a global experience for 200 students /year) and funds currently allocated for Watson/Odyssey Scholars (\$64,000 – a onetime \$4,000 grant to support research, service, leadership, an internship or a global experience for 14 students/year) will be reallocated to only support a global experience

## APPENDIX C

### A Report on the Current Status and Potential Future of Online Education at Elon University

Academic Affairs created an institutional priority for 2011-2012 to review current online course offerings and practices at Elon University.

The Academic Affairs Priority:

*Coordinate with Academic Council in charging the University Curriculum committee to explore and make recommendations for Elon University's online course offerings. (Book, Kircher, House)*

A committee was formed with a representative from the University Curriculum Committee (Barbara Gordon), a representative from Academic Council (Kevin O'Mara) and a faculty member at large (Gabie Smith). The committee also included Christopher Waters and Connie Book. Our discussions focused primarily on undergraduate education.

The Academic Affairs charge:

- Explore the success of our online course offerings and the viability of offering online courses during the academic year and under what circumstances.
- Explore the evaluation of teaching in our online courses, the integration of the new evaluation tool in these classes and how information about teaching is shared with the faculty member and the deans.
- Explore how the faculty is developed to teach online courses and our success in creating meaningful online courses.
- Explore how online courses are approved and the sign-off on summer school offerings.
- Determine the cost of the new federal legislation associated with interstate online course offerings and how it may impact Elon students going forward.

Elon University's engaged learning is currently rooted in a face-to-face instructional model. The university's limited offering of online courses is available during Summer Session I<sup>4</sup> and enrollment is open only to Elon students. In 2003, a faculty committee exploring the future at online education at the university recommended this pathway which was implemented in the summer of 2008. However, assets of online education are present in many of our courses throughout the school year. The faculty frequently leverages the internet and its ability to expand knowledge and connect us to the world in their courses. These assets of online capacities and our desire to create engaging teaching environments that result in the global citizens we seek our students to become are what prompted a reconsideration of online education at the university.

This reconsideration of online education at Elon also happened at a time when world attention turned to the concept of Massively Open Online Courses (called MOOCs) and a growing public discourse about the future and preservation of the commonwealth by making higher education free and open. Stanford, Google and an online course provider, Coursera, drew national attention when they opened upper level

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<sup>4</sup> One exception exists to this in the Masters of Education program. Two courses are offered annually online as part of this program.

engineering and computer science courses to anyone who wanted to engage with them online. Coursera now has agreements with dozens of universities and a full menu of free college courses available, but continues to struggle to answer how completing these courses will advance students in the MOOC environment. The *Chronicle of Higher Education* recently published a special supplement on online learning and found that considerable challenges remain in the “MOOC Madness” that erupted across universities in the summer and fall of 2012 (*Chronicle*, October 5, 2012).

This report adopts the following definitions of online education from the annual report *Going the Distance: Online Education in the United States* (Babson, 2012).

**Online Courses:** More than 80% of the course content is delivered online. Typically has no or very minimal face-to-face contact.

**Blended/Hybrid:** A course that blends online and face-to-face delivery with 30 to 79% of the course delivered online. These courses typically have a reduced number of face-to-face meetings and typically use online discussions.

**Web Facilitated:** A course that uses web based technology 1% to 29% to facilitate face-to-face instruction, such as course management system like Moodle to support documents and assignments and/or engaging guest speakers and other resources via the web. *The wide majority, if not all, of Elon courses during the academic year are web-facilitated.*

**Traditional:** Content where no online technology or web based content is included. The course is 100% taught in person and materially is delivered orally.

### Committee Review

During the spring 2012 semester, the committee met with stakeholders in online education that included the registrar (Mark Albertson), the director of CATL (Peter Felten), vice-president and CIO (Chris Fulkerson) to discuss experiences and considerations related to the charge and new legislative issues associated with online course offerings.

The committee also reviewed historical documents and benchmarked online education at our 2020 peer and aspirant schools.

The following report is a summary of the committee’s work along with a series of recommendations for Academic Affairs and other campus stakeholders to consider going forward.

1. *Explore the success of our online course offerings and the viability of offering online courses during the academic year and under what circumstances.*

Launched in 2008, online education has seen positive growth at the university, but not dramatic positive growth. Current online offerings are restricted to the first summer session and are restricted to Elon students. Even “special admission” students have not been allowed to enroll in online course. Online courses are currently capped at enrollments of 17.

Table 1: Number of online course taught in Summer Session I by year

Year	# of Undergraduate Online Courses Offered	# of Graduate Online Courses Offered
2008	42	0
2009	39	1
2010	40	0
2011	42	0
2012	42	1

As a proportion of summer course offerings, online course are offered at almost twice the rate as face-to-face courses.

Table 2: Total courses offered in Summer Session I by face-to-face v. online

Year	Total Courses Offered	Face-to-Face	Online
2008	61	19	42
2009	64	24	40
2010	64	24	40
2011	65	23	42
2012	61	19	42

Summer enrollment numbers have also steadily increased over the years as we engage more students and offer distinct programs during the summer (domestic programs in Los Angeles and NYC). To illustrate this, one can consider the courses students are taking during the summer.

Table 3: Summer enrollment in 2011 and 2012 by type of courses (undergraduate courses, graduate courses, internship courses)

Number of Students Enrolled in Summer Session I	2008	2009	2010	2011	2012
Undergraduate Classes	222	135	146	138	106
Graduate Classes	251	261	256	278	275
Undergraduate Online Classes	602	534	568	618	634
Graduate Online Classes	0	5	0	0	13
Undergraduate Internship	374	427	409	467	487
Graduate Internship	0	0	0	0	0
<b>Total Number of Students Enrolled in Summer Session 1</b>	1360	1346	1344	1424	1451

The registrar shared that while we have strong enrollment in online courses, not all online courses “make” during the summer. The benchmark of 10 students enrolled is used by the registrar as the

enrollment number needed to cover the expenses associated with the class. In 2011, 54 online courses were proposed. Eight were canceled due to low enrollment. Of the remaining courses (42), all but 5 had enrollments beyond 10 students. Five (5) were permitted to run by the registrar with enrollments of 7-9. *In other words, we are not able to enroll all the seats being offered in summer one, suggesting we have room for non-Elon students to enroll in these courses.*

The committee discussed new ideas about winter term and domestic study and other points during the calendar year that online courses, or at least a portion of the course being taught online in a blended/hybrid model, made sense. We also discussed recent university partnerships with schools in Germany and France and the possibility of online or blended/hybrid instruction as part of these programs. Lastly, our new Gap Program was considered and the potential for online education to link with these first semester students and enhance the Gap experience.

A review of schools often discussed as our 2020 peer and aspirant schools also found that these schools were not aggressively pursuing the online education model. Of these schools, only Villanova was making an aggressive attempt to expand its offerings of online courses and degrees that could be awarded via this mechanism.

***Recommendation #1:***

The current model of a robust schedule in summer session I is a strong model and consistent with the Elon vision. We recommend that summer session II be made available for similar online offerings.

We do find that there is current capacity for several non-Elon students to enroll in courses and we recommend that students admitted on special status to the university be permitted to take online courses. We also find there is sustained faculty interest in teaching during the summer beyond what we can enroll with Elon students.

We also find that the use of online education may be used to strategically supplement, rather than replace, the commitment we have to face-to-face education during the traditional academic year, particularly as it relates to our study abroad and new study USA programs. We recommend that these strategic uses be permitted.

We also do not support the belief that online education is less engaging. We do think it challenges our traditional and successful model, but in that challenge we may find enhanced engagement versus diminished engagement.

We recommend that these strategic uses with new courses be handled on a case by case basis and pilots be approved by the Provost's Council. If the pilot moves forward as permanent element of the curriculum, we recommend that the current faculty handbook process for curriculum/course approval be engaged which begins with the representative school/division curriculum committee.

- 2. Explore the evaluation of teaching in our online courses, the integration of the new evaluation tool in these classes and how information about teaching is shared with the faculty member and the deans.*

The current evaluation used with students enrolled in online courses is focused on technology. The instrument is administered via Moodle and shared with the faculty after grades have been submitted.

Questions used on the evaluation of online courses:

1. The course was well prepared and organized
2. The course material was communicated clearly
3. During the course, the instructor emphasized important points using various technologies such as narrated PowerPoint presentations, YouTube videos, or web searches
4. The instructor provided useful feedback on exams and assignments through tools such as Moodle, Word, Adobe Connect, IM, or Skype
5. The instructor clearly indicated how work would be evaluated
6. The course offered adequate opportunities for interaction with the instructor via e-mail, chat, Skype or other technologies
7. The course offered adequate opportunities for interaction with other students through Moodle forums, group chat, Skype, or Adobe Connect
8. Comment on aspects of the instructor's use of technology tools that helped engage you in the learning process
9. Were you adequately prepared to engage with other students using technology tools? How could Elon best prepare you for future online courses?
10. How can you Elon online program experience be improved?

The feedback about online courses is generally positive and consistent with the data collected from face-to-face courses. There are themes however that emerge related to the technology utilized. These include:

- Faster responses needed from faculty
- More effective use of multimedia
- More opportunities for interaction
- Communicate expectations clearly

The Teaching and Learning Technologies staff does not use the evaluation with individual faculty for formative development. Instead, the common themes are captured and used in faculty development in preparation of teaching online. The TLT team serves this function versus CATL.

The department chairs and/or deans do not receive copies of the teaching evaluations.

***Recommendation #2:***

The integration of the new student perceptions of teaching form into the online course is highly desirable in that it provides the faculty member and the university apples to apples assessment of their teaching. The new software allows for the integration of five customized questions. We recommend that faculty work to integrate in these open question the unique elements of the online course they desire to be assessed.

***Recommendation #3:***

Based on our understanding of how the current student feedback is used (only being used broadly by our technology staff to capture key issues to include in faculty preparation for online teaching), we recommend that a more robust and formative role for this data be implemented. Working with Teaching Learning and Technologies, the Center for Advancement Teaching and Learning, and other master

teachers, consideration should be given to each faculty member's professional development as an online instructor. We recommend that current staffing be repurposed to support the development of online instruction at the university.

3. *Explore how the faculty is developed to teach online courses and our success in creating meaningful online courses.*

The committee met with Dr. Peter Felten and had an open conversation about online education and teacher preparation. He believes that online teaching performance has improved since it was first introduced five years ago and that is due to the fact that faculty are more comfortable in this type of teaching environment. He also found that faculty teaching online is more likely to use technology in their face-to-face courses, such as extending the class hour using technologies or incorporating video clips and audio to illustrate points in class.

In the first few years of online course offerings at Elon, faculty was paid an additional stipend to transform their current face-to-face course as an online course. This is no longer the case. For the majority of the courses offered, we have the same returning faculty. The new faculty is mentored one on one by TLT staff and often seeks out the assistance of the new faculty fellow for technology.

This model seems highly effective and the committee does not have any recommendations in this area.

4. *Explore how online courses are approved and the sign-off on summer school offerings.*

Currently, approval of online courses is designed to follow this pattern:

- a. Faculty interested in teaching online speak to their department chair and secure a form from TLT.
- b. Upon approval by the department chair, and then the dean, the course is added to OnTrack.
- c. The registrar monitors enrollment and determines if we can offer the course.

Unfortunately, the process is sometimes not followed. This is particularly true for repeat courses. Program assistants, anticipating approval, go ahead and put the course on the schedule and a chain reaction begins from that point.

***Recommendation #4:***

We recommend that department chairs initiate, at the request of faculty, an OL summer course offering. The due dates for these courses are set by the Registrar. Once the course is uploaded into the schedule, we recommend that TLT reach out to faculty and make them aware of development opportunities. Additionally, we like the current practice of a "call for those interested in teaching summer school."

5. *Determine the cost of the new federal legislation associated with interstate online course offerings and how it may impact Elon students going forward.*

The assistant vice-president for technology, Chris Fulkerson, met with the committee and shared details of new federal legislation requiring state by state certification of any entity providing students online

education. The goal of the legislation is to give states the ability to prosecute fraud by higher education institutions doing business in their states. A state that does not certify online educators could result in the suspension of federal dollars to support that institution.

While there are several legal injunctions pending, most states have adopted policies/fees associated with online education. *On June 3<sup>rd</sup> an injunction on fines was imposed as the courts determine if the federal government can impose these requirements.*

Several resources explaining the bill and pending legal challenges was shared with the committee by Chris Fulkerson.

Some leeway exists around the definition of an online course versus a blended online/f2f course. A best practice on campus with online faculty is to call the group together to meet face-to-face before they exit campus in the spring. This meeting then in fact launches the course, creating a hybrid or blended online course.

#### ***Recommendation #5:***

We recommend that meeting on campus or if the student is abroad via some online connection before departing for the summer become an expectation of our online courses whenever feasible. Not only is it a best practice, but it may also have the added benefit of protecting the institution in this new “certification” environment being established in many states.

The committee recommends that the university create a reporting mechanism for online education so that these recommendations are administered and so that future work related to the implementation and success of online education at Elon have a home. This committee’s discussion was the first since the initial university conversation in 2003. Online education is now a permanent fixture in the higher education landscape and should be at Elon.

Additionally, summer school offers significant untapped potential for innovative online education and as an experimental landscape. We recommend that the provost establish a working group to fully explore Summer@Elon and its potential.

The recommendations presented in this report are designed to engage a robust conversation on next steps with online education. We move this forward to Academic Affairs, Academic Council and the Provost’s Council for its review.

#### **Sampling of peer and aspirant institution and online course offerings**

1. Bucknell University
  - No online classes
2. Butler University
  - No online classes
3. William & Mary
  - No online classes
4. Drake University
  - Usually only in summer session; see printed document with pages 1-5 of 807 of list of course offerings in binder
5. Furman University

- No online classes
- 6. Lehigh University
  - Only graduate level, and then depends on the college
- 7. Loyola University (New Orleans)
  - Online courses for summer 2012 in binder.
- 8. Tulane University
  - Cannot earn a degree with online classes, but do have some course offerings online through summer and August-May academic year; see printed documents for course offerings in binder.
- 9. University of Richmond
  - School of Continuing Studies only; temporary catalog in binder, official course offering coming in mid-March (est. March 11 or 12)
- 10. Valparaiso University
  - Summer only, only one in Fall and Spring (7-week communication course)
- 11. Villanova University
  - Many online classes for each semester (including summers); first 5 pages of summer course offerings in binder; go to [https://novasis.villanova.edu/pls/bannerprd/bvckschd.p\\_disp\\_dyn\\_sched](https://novasis.villanova.edu/pls/bannerprd/bvckschd.p_disp_dyn_sched) and can search by term
  - Can earn some degrees through their online programs.
  - Most extensive of the schools reviewed.
- 12. Boston College
  - Online courses are live video classrooms
    - i. They offer: 4 computer classes; 1 English class; 2 graduate hybrid courses
  - Semester online –fall 2013
- 13. Brown University
  - No online classes
  - Joined Coursera in summer 2012.
- 14. Emory University
  - No online courses found in major subject areas.
  - Joined Coursera in summer 2012.
  - Graduate:
    - *Very few* if any online courses (each graduate school different, but in total very few courses offered online)
- 15. Georgetown University
  - No online courses.
- 16. Rice University
  - No online courses.
  - Joined Coursera in summer 2012.
- 17. University of Notre Dame
  - No online courses
  - Semester online –fall 2013
- 18. Vanderbilt University
  - No online courses.
  - Joined Coursera in summer 2012.
- 19. Wake Forest University
  - No online courses.

## APPENDIX D

This report contains a summary of findings and an institutional recommendation regarding awarding academic credit for Massive Open Online Courses.

### ACE Recommendation for Credit:

The American Council on Education's (ACE) College Credit Recommendation Service is a recognized authority in assessing non-traditional education experiences and helping adults gain credit for courses and exams taken outside traditional degree programs. Recently, ACE evaluated and recommended college credit for five courses on Coursera, the leading MOOC provider. Students who meet all requirements and successfully complete one of these five pre-approved courses may request a transcript with credit recommendations from ACE, which they can then present to the college or university of their choice for prerequisite or undergraduate credit consideration, to be granted at the discretion of the institution.

The American Council on Education is certainly not new to higher education and recommending credit. For more than 50 years, the ACE Military Guide has allowed higher education institutions to grant college credit based on military courses and occupations using the ACE evaluation process. Faculty evaluators exercise professional judgment and consider competencies that can be equated with postsecondary curricula. The current Elon Registrar is listed as an ACE credit evaluator in the field of social sciences.

### Proposed Policy:

Recognizing that learning can take place in various modes and places outside of the traditional college classroom, the Office of the Registrar proposes that, beginning Fall 2013, the University accepts the ACE recommendation for credit for MOOC courses that have a direct course equivalency at Elon University.

The five courses approved for college credit recommendation include four undergraduate credit courses:

	<u>Elon Equivalency</u>
• <a href="#">Pre-Calculus</a> from the University of California, Irvine	MTH1XX
• <a href="#">Introduction to Genetics and Evolution</a> from Duke University	BIO105
• <a href="#">Bioelectricity: A Quantitative Approach</a> from Duke University	BIO105
• <a href="#">Calculus: Single Variable</a> from the University of Pennsylvania	MTH121

The fifth course, approved for developmental math vocational credit recommendation, would not be accepted for Elon credit:

- [Algebra](#) from the University of California, Irvine

Currently, Elon grants credit by exam for AP, CLEP, IB, British A Level, French Baccalaureate, German Arbitur, and Swiss Maturite. Students may also "course challenge" any course offered by Elon University for academic credit to be posted to the transcript at a reduced cost.(Elon Catalog page 46)

While Elon does not grant credit based on ACE recommendations for military experience, military veterans are granted two credits for HED 111 on receipt of a DD214.

### Credit for MOOCs:

Granting credit for MOOCs falls into two categories:

- A. Transfer Credit: If a student receives credit for a MOOC from a regionally accredited institution, this credit will transfer as does any other credit.
- B. Credit by Examination: If a student takes a MOOC certified by ACE and gains knowledge and skills that lead to a passing score (70) on a comprehensive final examination, the student will be awarded credit by examination. Only MOOC courses with a direct equivalency to Elon courses will be granted credit. Students who successfully complete a course through Coursera earn a Verified Certificate issued by Coursera stating that the individual has verified their identity while completing work in the course. The Course Records Page from Coursera would need to accompany the certificate for credit to be awarded.

### Posting MOOCs to the Elon Transcript:

Credit for MOOCs would appear similar to other credit by examination options accepted by Elon University. A course attribute indicating credit by MOOC examination would be listed on the transcript with an appropriate information key on the back of the official transcript.

### Challenges with Proposed Policy:

A number of policy barriers exist at Elon that need to be addressed before granting MOOC credit. Currently, Elon only awards credit taken at a degree granting, regionally accredited college or university or by approved examination (see above). Minimum thresholds are set by Elon faculty for credit to be given by exam (AP, IB, etc.). Since the Coursera certificate only indicates that the student “passed” the content of the course, a secondary step requiring the Course Records Page would be necessary to meet the C- (70%) or better policy to award credit at Elon. This assumes that the term “passed” would not be sufficient to award credit. Additionally, not all courses would be eligible for credit, even if Elon does have an equivalency. Courses which at Elon have an experiential component must be taken in the classroom such as science labs, studio arts, foreign language and public speaking. Finally, the number of ACE approved MOOC courses are relatively low but expected to grow rather quickly. With the state of MOOCs in flux, the Registrar’s Office also feels it would be prudent to have a secondary departmental review process for these ACE-approved courses at the departmental level.

An additional departmental challenge that may arise is the distinction between giving credit for the course and allowing a course to meet a prerequisite but not giving academic credit. A review of Elon peer and aspirant institutions yielded no institutions currently accepting MOOC credit. SACS has yet to release information regarding MOOCs but does have it listed as a topic for discussion this summer.

### Conclusion:

Ultimately, Elon can expect to begin receiving transcripts with MOOC credit previously awarded. Elon students may benefit from the option of earning MOOC credit in conjunction with their traditional college experience. As it stands, a minimum of 60 or more hours of study must be completed at Elon to earn an Elon degree. Thus, policies are already in place to protect the core functioning of the university. While Elon does not anticipate an initial rush to take MOOC classes for credit, institutions are already scrambling trying to decide how to handle these new challenges. There is a concern about the future of online courses during summer as low-cost MOOCs grow. However, a marketing strategy to encourage MOOC registration combined with online offerings to meet the 60 hours is certainly an intriguing marketing component. We may also want to look at increasing the number of Elon hours to obtain the Elon degree should we begin accepting MOOC credit. With major university systems joining the

movement and ACE recommended courses grow, it is just a matter of time before transfer credit becomes a standard.

### **Bachelor’s Degree Requirements ([from the Elon Catalog](#))**

Elon University offers an academic program consisting of a minimum of 132 semester hours of credit for the bachelor’s degree. The degree consists of a major field of concentration, a General Studies program and elective courses. To earn a baccalaureate degree the student completes the following academic program:

1. Satisfactory work in one major subject
2. Completion of General Studies as follows:
  - a. First-Year Core
    - (1) General Studies 110/The Global Experience ..... 4
    - (2) General Studies/English 110 ..... 4
    - (3) General Studies/Mathematics (MTH 110, 151 or higher) ..... 4  
(Excludes MTH 208, 209)
  - b. Experiential Learning (two units) (*See page 36*)
  - c. Foreign Language (*See page 36*) ..... 0-8
  - d. Studies in the Arts and Sciences
 

Transfer students with at least 18 semester hours of transfer credit must complete 32 hours total in Studies in the Arts and Sciences, but may have as few as 7 hours in one or more of the four Studies in the Arts and Sciences areas.

    - (1) Expression ..... 8  
Eight hours chosen from at least two of the following: literature (in English or foreign languages), philosophy and fine arts (art, art history, dance, fine arts, music, music theatre and theatre arts). At least one course must be literature.
    - (2) Civilization ..... 8  
Eight hours chosen from at least two of the following: history, foreign languages and religious studies.
    - (3) Society ..... 8  
Eight hours chosen from at least two of the following: economics, geography, human service studies, political science, psychology and sociology/ anthropology.
    - (4) Science/Analysis ..... 8  
Eight hours chosen from one or more of the following: mathematics/statistics, computer science, information science and science. At least one course must be a physical or biological laboratory science.
  - e. Advanced Studies ..... 12
    - (1) Eight hours of 300-400-level courses outside the major field chosen from departments and areas in Expression, Civilization, Society and Science/  
Analysis in the arts and sciences ..... 8
    - (2) General Studies Interdisciplinary Capstone Seminar ..... 4

### **Total hours 56-60**

3. Completion of elective courses to meet 132 credit hours
4. Satisfactory completion of a comprehensive evaluation in the major field of study
5. A minimum of 36 semester hours of junior/senior level work
6. Sixty or more semester hours of study at Elon, including the last term before graduation
7. Twice as many quality points as credit hours attempted must be earned
8. Students are encouraged to participate in Commencement exercises\*

Students must demonstrate competence in English and mathematics or successfully complete English 100 in concurrence with English 110 and Mathematics 100 before beginning the mathematics requirement in the First-Year Core.

Students who have not had two years of one foreign language in secondary school must make up this deficiency by taking a first-level 121 foreign language course. Courses taken to remove this deficiency will not satisfy the General Studies requirements. *See* page 35 for further details. A maximum of 16 semester hours of internship/cooperative education credit may be applied to the 132 semester hours required for the A.B., B.S., B.S.B.A. and B.F.A. degrees. Students must apply for graduation by the dates published by the Registrar. Degrees are conferred in December, January, May and August. A student may graduate under the provisions of the catalog published the year of first enrollment, provided the course of study is completed within five years. After the interval of five years, a student's credits will be subject to review by the Provost/Vice President for Academic Affairs.

Students who qualify for more than one major must select the primary major for which they will receive a bachelor's degree. No student will be awarded two degrees at Commencement.

It is the student's responsibility to be familiar with the preceding requirements for graduation.

\*Students who meet all other responsibilities but are 1-4 credit hours short in any one area may participate in Commencement exercises; degree will be awarded upon completion of all requirements. Students may only participate in one undergraduate Commencement.

### **The Major**

A minimum GPA of 2.0 in the requirements for the major is required for graduation. Bachelor of Arts majors require 36–110 semester hours of credit. Bachelor of Science, Bachelor of Fine Arts or Bachelor of Science in Business Administration majors require 72-76 semester hours of credit. The student may elect to complete more than one major. No later than the beginning of the junior year, each candidate for a bachelor's degree must select a major field. Requirements for each major are listed with the courses of instruction.

### **The Minor**

A candidate for the bachelor's degree may elect a field (or fields) of minor concentration, consisting of 20-24 semester hours with a minimum GPA of 2.0.

### **Academic Programs**

The academic program at Elon University prepares qualified students to enter graduate and professional schools or readies students to begin work in such fields as business, communications, teaching, public service and allied health. The bachelor's degree consists of a major field of concentration in the liberal arts or in a professional or pre-professional area, a general studies program and elective courses.

### **Costs Covered by Tuition**

Included in the tuition fees are costs of registration, use of the library and recreational facilities, admission to home athletic events, admission to campus cultural events, student publications, post office box, regular laboratory fees and 12 to 18 semester hours of work, inclusive each semester. The tuition, fees and estimated book expenses do not include fees for special courses and special laboratory work which depend on the course of study undertaken. Personal expenses vary with the individual student.

## APPENDIX E

### Examples of Elon Faculty using instructional technology

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Elon faculty are known for their commitment to active, experiential, and engaged teaching. In this context, *U.S. News and World Report* recognizes Elon as one of the top Southern schools for undergraduate teaching ([\*Best Undergraduate Teaching Regional Universities\*](#)).

Elon faculty and staff currently use digitally enhanced teaching and learning in myriad ways to enhance Elon's student centered and learning centered environment. The information below presents a sample of the ways that Elon faculty are already using emerging technologies in teaching and learning. The Instructional and Campus Technologies' blog at <http://blogs.elon.edu/technology/?cat=795> regularly provides updates on the varied and interesting ways that technology is used in Elon classes. I reiterate that this is not a comprehensive list but just a sampling.

Many higher education journals repost Elon's technology blog highlighting what we are doing with digitally enhanced teaching and learning. EdTech listed Elon's Technology blog to the Dean's List of must read higher ed technology blogs.

**Online Courses** - *more than 80% of the course content is delivered online, typically has no or very minimal face-to-face contact*

The university's offering of online courses is available during Summer Session I and enrollment is open only to Elon students. One exception exists to this in the Masters of Education program. Courses are offered annually online as part of this program. All of Elon's courses are listed and described below at the end of this Appendix.

**Blended Instruction** - *a course that blends online and face-to-face delivery with 30 to 79% of the course delivered online*

**Kristina Meinking: World Language and Cultures:** In 2012-13 Elon served as a pilot institution, and Kristina served as Elon's lead faculty in a new program from the Sunoikisis Consortium to offer a two-course sequence in elementary Greek language. Sunoikisis is coordinated by the Center for Hellenic Studies, bringing together Classics faculty from around the country to advance teaching, learning, and scholarship in the field.

In this year's Greek language pilot, Professor Kenny Morrell, Rhodes College, taught his existing Greek course at Rhodes in a blended environment that included online resources and a weekly meeting in Google Hangouts where Professor Morrell worked live with students at Rhodes and Elon. Elon students in these two courses also met once or twice per week face-to-face with Professor Meinking and met weekly online with Professor Ryan Fowler, curriculum fellow at the Center for Hellenic Studies.

Professors Morrell, Meinking, Fowler, and others were planning to meet in June to assess the outcomes of this year's pilot and to plan for a blended learning three-course Greek sequence for 2013-2014 that will include Rhodes and Elon, along with students from Hope College, Agnes Scott College, and other institutions.

**Flip Instruction/Screencasting** – *flip instruction is a teaching format in which students get content through out-of-class materials and use class time in various interactive ways -- screencasting is a digital recording of computer screen output, also known as a video screen capture, often containing audio narration*

- **David Neville, German:** Created video lessons to be watched outside of class to allow more time for language practice in the classroom. He also used Moodle quizzes to verify students had viewed the videos.
- **Jeff Carpenter, Education; Crystal Anderson, English:** Created a series of online videos for supplemental writing instruction. They also assigned screencasts for their students to create for projects or homework.
- **Tony Amoruso, Accounting:** Created videos of the most difficult lessons so students can review the content outside of class.
- **Scott Buechler, Business:** Incorporated screencasting into his online class to explain difficult concepts.
- **Jan Pagoria, Director of Internships and Instructor - Love School of Business:** Had students present their internship experiences online via screencasting.
- **Daryl Lawson, Physical Therapy:** Created a template for a series of videos that students (and clinicians) can use as a reference for orthopedic diagnostic tests. Students primarily use this resource when they are in their clinical rotations as a refresher for diagnostic tests.
- **Antonio Izzo, Yuko Miyamoto, Herb House, and Robert Vick, Biology:** TLT worked with the clients to create a series of videos developed to support student preparation for lab activities, participation in lab activities, and review of lab activities in these courses prior to exams and tests. These videos demonstrate lab activities and procedures in precisely the way students will be expected to conduct them, in the precise environment where they will be conducting them, with the precise equipment and supplies which they will employ to conduct them.
- **Anne Simpkins:** Traveling with Semester at Sea this fall, she needed a way to use a shorter class time. Anne usually teaches in a three hour time frame. Semester at Sea courses are taught in one hour and 20 minutes. Anne decided to experiment with “flipping the classroom”, giving lecture or demonstration instruction via technology, and using class time as a working lab with faculty troubleshooting. In spring 2013, she worked with Communications Fellow Mia Watkins, to film a series of demonstration videos on paint surface preparation, drawing a cartoon, and painting objects and landscape with color to suggest depth. These videos will be available to students in her classes via the Intranet/web to watch as often as is helpful. When Anne returns, she will be offering these videos via the Moodle site for Elon students in painting and drawing classes. Mia and Anne plan to shoot several additional short topics that relate to both life drawing, and the use of a range of art mediums.

**Simulations and Gamification** - *is the use of simulations as well as game thinking and game mechanics in a non-game context to engage users and solve problems*

- **Judy Esposito, Phil Miller, Human Service Studies:** Uses an interactive video simulation that allows students to ask questions of a patient. Based on the questions they ask, a video response appears. This teaching resource was created (in partnership with TLT) as an in-class activity.
- **Shannon Duvall, Computing Sciences:** Teaches her course through a gamified reward systems where students accomplish quests for success.
- **Tony Crider, Physics; Megan Squire, Computing Sciences:** Facilitate learning through the use of Second Life experiences and hands-on creations in the virtual environment.
- **Tony Crider, Physics:** Uses Reacting to the Past, an elaborate role-playing game where students collaborate in factions to debate a “big question.”

- **Sharon Hodge, Marketing:** Uses a game in her online class to teach principles of marketing. Centered around a game similar to Monopoly, students learn about marketing through gameplay.

**Video Conferencing** – *is communication by a set of telecommunication technologies which allow two or more locations to communicate by simultaneous two-way video and audio transmissions*

- **Daryl Lawson, Physical Therapy:** Connects students in a classroom with a wound clinic in Nevada, giving students a chance to interact with real doctors and patients.
- **Marianne Janssen, Physical Therapy; Steve Folgers, Physical Therapy:** Connects students working in clinics via live video with physical therapy students in the classroom.
- **Sophie Adamson, French; Scott Windham, German:** Use Skype and other video conferencing tools to enable students to speak to other students in German or French.
- **Antonio Izzo, Biology; Randy Piland, Communications:** Bring scientists and professionals in the field into the classroom for guest lectures, question and answer sessions, and professional feedback.
- **Michael Rodriguez, Business:** Facilitates lectures through the use of Adobe Connect in his online course for both undergraduate and graduate learning.

**Moodle** – *the majority of Elon faculty use Moodle to provide course content, the courses below provide examples of how Moodle can be used*

- **Stephen Folger, Physical Therapy:** Integrates graphics, videos, and RSS feeds throughout his Moodle site to engage students and help describe content.
- **Ann Cahill, Philosophy:** Uses recorded lectures and Moodle to allow students to advance in course content at their own pace by completing online activities.
- **Gerald Dillashaw, Education; Mary Gowan, Business:** Use Moodle quizzes to assess students in online summer courses and have gone through the process of developing feedback for each quiz question delivered instantly after a response is submitted.
- **Karl Sienerth, Chemistry:** Conducts chemistry experiments (i.e. fingerprint analysis) in his online course through heavy use of forums. In his course, based upon the television show CSI, students learn about crime scene investigations and protocol and the tools and chemistry components involved in solving these crimes. They also dissect the television show and prove what methods used are false or incorrect protocol.
- **Clay Stevenson, Music:** Uses Moodle in a very robust way by tracking attendance, sharing lectures and class notes, running Forums, assessing with quizzes, and using well-designed assignments.
- **Gerald Gibson, Communications:** Uses Moodle to share class materials, link to dozens of external resources, run his exams, and collect advanced project-based work. In his Corporate Publishing course, the students' final project is to design a publication that will display properly on an iPad.
- **Gabie Smith, Psychology:** Implemented an Ask the Sexpert in her Human Sexuality course which has yielded robust discussions in Moodle.

**Digital Storytelling** – *is the practice of using computer-based tools, including graphics, audio, video, and Web publishing to tell stories, including digital documentaries, computer-based narratives, digital essays, electronic memoirs, interactive storytelling*

- **Michele Kleckner, Computing Sciences; Steve Braye, English; Alan Russell, Math, Mayte de Lama, Spanish; Maureen Irie, Spanish; Ketavan Kupatadze, Spanish; Rebecca Olmedo, Spanish; Terry Tomasek, Education; Tom Arcaro, Sociology:** Assign student digital stories and digital documentaries instead of traditional papers.

- **Laura Roselle, Political Science:** Has students mashup video, audio, music, images, and text from a country into a new narrative that tells a story of the country.
- **Angela Owusu-Ansah, Education:** Has M.Ed. students use Animoto and iMovie for student projects.

## Miscellaneous and other Specific uses of Technology

- **Sharon Spray, Political Science:** Has students research a topic in pairs and create multimedia websites instead of a traditional research paper.
- **Todd Lee, Math:** Uses Piazza.com to encourage student interactions and incorporates apps to teach computation in Calculus.
- **Harlen Makemson, Communications:** Has students gather, sort, and make sense of information through web curation.
- **Laura Roselle, Political Science; Harlen Makemson, Communications:** Have students gather and share articles, photos, infographics, and other web sources on Pinterest.

## Tablets

- **Randy Piland, Communications; Gerald Gibson, Communications:** Have students collaborate to create a visual magazine that displays on mobile devices.
- **Steve Braye, English:** Has students in the study abroad Ireland course contribute to a blog via an iPad in Ireland. He also uses Flickr as a repository for study abroad participant photos.

## Electronic Feedback

- **Patty Cox, Business; Randy Piland, Communications:** Use VoiceThread to enhance participation in online courses and to gather student feedback.
- **Jerry Dillashaw, Education:** Uses the feedback tool in Moodle on quizzes.
- **Prudence Layne, English; Steve Braye, English; Victoria Shropshire, English; Jessie Moore, English; Paula Patch, English:** Use the commenting feature in Word to provide feedback.
- **Crystal Anderson, English:** Provides student feedback on papers with screencasting videos.

## Twitter and Facebook

- **Paula Patch, English:** Has students analyze their choices about audience, voice, and purpose while writing in Twitter, Facebook, and SMS.
- **Sophie Adamson, French:** Incorporates Twitter into her classes by requiring students to find a Twitter pen pal to practice writing in French.
- **Victoria Shropshire, English:** Requires students to turn assignments in using Facebook. She also uses this as the primary means of communication outside of class.

## Collaborative Writing

- **Duke Hutchings, Computer Sciences:** Integrates Google Docs onto his Moodle page to enable students to access all course materials on laptops, mobile devices, and tablets.

- **Victoria Shropshire, English:** Uses a wiki for collaboration on papers.
- **Steve Braye, English:** Uses blogs to post information, discuss articles, and simplify peer review.

## Blogs

- **Beth McAlhany, Marketing:** Has students develop their own professional presence on the web with a blog.
- **Jessie Moore, English; Victoria Shropshire, English; Paula Patch, English; Scott Buechler, Management; Omri Shimron, Music; Laurin Kier, Sociology:** Have students practice writing for real, authentic audiences and not just the professor.
- **Prudence Layne, English; Steve Braye, English; Eric Hall, Exercise Science; Tina Das, Economics:** Have students document and reflect on their study abroad experiences.
- **Scott Windham, German; Phillip Motley, Communications; Brian Walsh, Communications; Geoffrey Claussen, Religion:** Manage courses and communicate with students outside of Moodle.
- **Paula DiBioso, Physical Therapy:** Structures a scavenger hunt to engage students in difficult concepts and solve the problem at hand.
- **Tom Arcaro, Sociology; Corinne Auman, Psychology:** Have students post content to a blog and collaboratively build knowledge around a topic.
- **Randy Piland, Communications:** Has students create a photo blog telling stories with pictures.

## Classroom Response Devices (clickers)

- **Kyle Altmann, Physics; Brandon Lunk, Physics; Antonio Izzo, Biology; Daryl Lawson, Physical Therapy; Joel Karty, Chemistry; Brooks Depro, Economics:** Gather in-class student feedback and encourage discussion using classroom response systems.
- **Heidi Hollingsworth, Education:** Uses Socrative.com to gather formative information about student understanding, as well as formative and summative information about her own teaching.
- **Scott Buechler, Management; Amy Hogan, Psychology:** Use clickers instead of Scantrons for easy-to-administer assessments.
- **Mark Courtright, Management:** Has students use clickers to peer review presentations.
- **Jim Barbour, Economics:** Uses LectureTools.com to gather real-time student feedback and provide a place for students to take notes directly on the course content.

## Health Sciences – examples of faculty using digitally enhanced teaching and learning in the School of Health Sciences

### Physician Assistant Studies (PA)

- **Harvey® The Cardiopulmonary Patient Simulator** is used for instructing students in bedside cardiopulmonary care of a patient.
- **NOELLE® Maternal and Neonatal Birthing Simulator** is used for instructing students during their OBGYN rotation. The simulator is designed to provide a complete birthing experience before, during and after delivery.

- **Online video and photographs**—Janet Cope has created many online materials (such as videos and photographs) of dissections in the anatomy lab for use by the PA students.
- **Online Polling**—Melissa Murfin uses online polling (similar to clickers) to gather feedback from students during classes.
- **Diagnostic Reasoning Software**—Brenda Quincy uses Diagnostic Reasoning Software (DxR), which is a patient-simulation software that analyzes the student’s ability to diagnose a problem correctly and to recommend appropriate therapy.
- **Moodle**, Elon University’s learning management system is used extensively for distributing class materials. The students bring computers or tablets to class so they can access the materials while in class. All exams and quizzes in the Physician Assistant’s Program are given through Moodle.
- **PA Manager software** is used by the faculty to map learning outcomes and class content. Using the software is essential in the accreditation process to show which classes that the student takes cover the required material.
- **Online National Standard Tests**—After each 6-week rotation during a student’s clinical year, students are tested from an online pool of questions from the Physician Assistant Association.
- **Video Proctors in Patient Care Simulation Rooms**—Each room has high definition cameras and microphones built in. The student’s interaction with patients can be monitored by a faculty member or recorded for later review with the student.

Computers or mobile devices—most students bring computers or other mobile devices with them to class to take notes and access materials.

### Physical Therapy Education

- **Tablet/PC**—Janet Cope and Steve Folger use their tablet/PC to draw on the PowerPoint Presentations as they explain diagrams and photos to students.
- **Clickers**—Several faculty members use the feedback devices in their class to gauge student understanding.
- **Standardized Patients**—These are people who are professional patients that are able to instruct the student caregiver. These sessions are recorded in high definition video so that the student, the professional patient and the professor can review the care.
- **Intensive Care Unit Simulations**—Steve Bailey uses the simulation rooms with someone acting as the patient. The professor controls the readouts from the monitoring equipment from a remote room where he views what is happening via high definition cameras. For example the professor may make the blood pressure reading suddenly drop and speaks directly to the patient through a concealed ear bud saying something like, “You feel like you are going to pass out.” The student therapist will have to respond appropriately to the monitors and the patient’s feedback.
- **Patient Perspective Camera**—This is a camera built into a pair of glasses so that the care can be captured from the patient’s perspective. The student and faculty member can later review the video to see how the physical therapist interacted with the patient.
- **Anatomy Lab**—Every dissection station has a computer so the student can explore anatomy programs while dissecting. Each station has a large monitor that the faculty member can push material to everyone’s station. There are six cameras mounted in the ceiling so that the faculty member, Janet Cope, can focus on a specimen and push out the image to every station instead of students crowding around and looking over her shoulder. The six cameras provide the opportunity for different perspectives. Dr. Cope has now created a large library of exemplary dissections.
- **Computer Lab**—Dr. Steve Folger teaches his Neuroanatomy program in the computer lab that has students sitting in groups of 5 computers with a large LCD monitor at the end of the table. Any of the students can share their screens with their group of 5 or the instructor can choose the screen of

any computer in the room and push it to the large monitors. Dr. Folger finds this especially useful in Neuroimaging.

- **iPads**—Dr. Steve Folger also uses iPads in his Neuroanatomy classes. He has collected many images over the years. While he is talking about the image, he can demonstrate the signal pathways by drawing over the image. He also explains what happens if there is a lesion on the pathway and how it affects motor coordination at different locations.
- **Skills Lab**—All of the physical therapy professors use the skills labs. Each lab has 2 high definition cameras in the ceiling, two projectors facing the front of the room and large high definition LCD monitors on the all the walls of the lab. The cameras can be focused on a demonstration and projected throughout the room. The live video with audio can even be shared with other rooms.
- **Virtual Grand Rounds**—Two-way communication technology (audio and video) has been used with hospitals and clinics for virtual rounds. The doctor can ask an intern to present the case and the Elon University based students can answer questions asked by the specialist or ask the specialist questions depending on the situation.
- **Biomechanics Lab**—Sue Chinworth is just one of the faculty members that use this lab. The room is a black room that has 12 infrared cameras that are used in conjunction with sensors points placed on a body. A computer captures the information and renders a 3-D image of the movement for analysis of a person's gait. The lab also has force plates in the floor that measure force from walking, jumping or landing. There is also a 16 channel EMG (Electro Myography) that is used for evaluating and recording the electrical activity produced by skeletal muscles. There is also a device called a GAITrite, a 20-foot long pressure pad that records gait, stride and positioning of the feet for measurement. Feeding all of this information into a computer with 3-D rendering software can give students and faculty detailed imaging and measurements for research and analysis.
- **Human Performance Lab**—Drs. Steve Baily, Steve Folger and Srikant Vallabhajosula use this lab's equipment to measure and record strength of joints and muscles, muscle power, and balance. In this lab, the professors have studied the effects of concussions on high school football players. A handful of undergraduate and graduate students assist the professors in this research.
- **Neuroscience Lab**—Dr. Steve Folger in Physical Therapy and Dr. Amy Overman in Psychology use the 64 channel Electroencephalography (EEG) system in their classes that study neurology. Electroencephalography (EEG) is the recording of electrical activity along the scalp. EEG measures voltage fluctuations resulting from ionic current flows within the neurons of the brain.
- **Ultrasound Lab**—The students in Physical Therapy use an ultrasound machine to look at muscle thickness or bulk and how they are using the muscles during movement.
- **Metabolic Lab**—Graduate and undergraduate students and faculty use this lab. A respiratory gas analyzer measures a subject while they are on treadmills or stationary cycles.

## Undergraduate Online (only) Course Descriptions

- **ACC 201 PRINCIPLES OF FINANCIAL ACCOUNTING 4 S.H. - M. Rodriguez** - In this introduction to the financial reporting process, study emphasizes the accrual basis of accounting. Students learn to prepare and interpret income statements and balance sheets, analyze business transactions and determine the effects of transactions on assets and equities.
- **ACC 212 PRINCIPLES OF MANAGERIAL ACCOUNTING 4 S.H. - P. Cox** - Students gain an overview of the ways accounting information helps managers as they plan, develop control procedures and make decisions for their organizations. The course also covers the concepts of cost behavior, cost-volume-profit analysis and the preparation of budgets. *Prerequisite: ACC 201.*
- **BUS 202 BUSINESS COMMUNICATIONS 4 S.H. - S. Buechler** - Methods for organizing ideas, formatting information, understanding audience needs and developing a professional communication style are emphasized in this course focusing on oral and written communication. Students practice writing business reports, letters, email messages and memoranda; students sharpen their skills in effective oral presentation through individual and team presentations. Cases and exercises emphasize informative and persuasive communication. *Prerequisites: ENG 110 and sophomore standing or higher.*
- **BUS 301 ADVANCED APPLICATIONS: EXCEL FOR BUSINESS 4 S.H. - M. Allen** - Microsoft Office Excel is a rich computer application with impressive analytical capability and more and more businesses, especially those dealing with statistical and financial information, are finding its powers critical to their future success. This course exposes students to some of the advanced capabilities of Excel, including statistical analysis, financial analysis and modeling, PivotTables, scenario tools, a variety of add-ins, the creation of macros, and advanced charts and graphs. After taking this course, students will have demonstrated knowledge of the more advanced features of Microsoft Excel.
- **BUS 303 INTRODUCTION TO MANAGING 4 S.H. - S. Manring** - For non-majors and business administration minors, this introductory course examines universal business processes such as goal-setting, planning, decision-making, motivation, human resource management and control which are utilized by both not-for-profit and government organizations. **Sophomore standing required.** Credit not given in the major for BUS 303 and BUS 323.
- **BUS 304 INTRODUCTION TO MARKETING 4 S.H. - M. Rodriguez** - For non-majors and business administration minors, this introductory course examines marketing principles that are applied by all organizations. Credit not given in the major for BUS 304. Course credit not given for both BUS 304 and MKT 311. Offered fall, winter and spring. **Sophomore standing required.**
- **BUS 326 OPERATIONS AND SUPPLY CHAIN MANAGEMENT 4 S.H. - C. Rich and K. O'Mara** - This course explores the importance of operational methodologies such as demand forecasting, inventory management, project management, quality assurance, and just-in-time and lean activities within the context of supply chain management and their impact on the profitability of the company. Operations and supply chain management together form one of the three core business functions. *Prerequisites: ACC 212, ECO 203, MGT 323 or BUS 303.*
- **CHM 174 CSI REALITY: CHEMISTRY FROM THE CUTTING ROOM FLOOR 4 S.H. - K. Matera** Over the past decade, a host of television shows (e.g., “CSI,” “Law and Order”) and prominent real-life cases have fostered a new American obsession: forensics. This affection for forensics, while increasing interest in science, has also negatively impacted our society by de-emphasizing the real science behind the various forensic techniques. This phenomenon has been dubbed the “CSI Effect,” resulting in a generation of “armchair scientists.” This course will examine the hard science of forensics, focusing on physical, chemical and instrumental methods. Also, through a variety of readings and responses, online discussion board forums, and Web-based activities we will evaluate the implications of the “CSI Effect” on modern society. This course is intended for science and non-science majors alike, and will fulfill the non-lab science General Studies requirement.

- **COM 110 MEDIA WRITING 4 S.H. - B. Lee** - Clear, logical writing is necessary to communicate effectively to an audience. This course focuses on background research, interviews, accuracy, attribution and styles of writing (print, broadcast, online, news releases). Grammar and language skills are refined, and Associated Press style is introduced.
- **COM 230 MEDIA HISTORY, MEDIA TODAY 4 S.H. - H. Makemson** - A free society requires a free and vibrant media. This course examines the development, growth and impact of media in America. It studies the major trends, important personalities, ownership structures, technological advancements, diversity of audiences, the rise of media convergence, and societal impact ranging from colonial newspapers in the 1600s to today's print, broadcast and online media. *Prerequisite: C- or better in COM 100.*
- **COM 234 BROADCASTING IN THE PUBLIC INTEREST 4 S.H. - N. Clark** - Broadcasting was conceived and is regulated to serve the public interest. This course provides a philosophical, historical, technological and social overview of the broadcast industry and its progeny. It focuses on broadcast economics, audience analysis, management, programming, media effects, government policy and FCC regulation in the public interest. *Prerequisite: C- or better in COM 100.*
- **COM 322 CORPORATE PUBLISHING 4 S.H. - C. Piland** - Print and Web media (publications, public relations, advertising and the Internet) are used to communicate with internal and external publics. This course emphasizes effective visual design and publishing for corporate purposes. *Prerequisite: COM 220.*
- **COM 376 DIGITAL BRAND COMMUNICATIONS 4 S.H. - D. Haygood** -This course examines new media communication tools and how to communicate about brands successfully in the digital realm. The course covers such topics as search engine optimization, advertising on blogs, advertising networks for web sites, Twitter/Pinterest as branding tools, branding in a mobile space, social media, and web analytics. Students will gain an understanding of the new media landscape and develop some basic skills in digital brand communications.
- **ECO 111 PRINCIPLES OF ECONOMICS 4 S.H. - J. Platania** - An introduction to the fundamentals of both microeconomics and macroeconomics, including supply and demand, the theory of the firm, consumer behavior, macroeconomic equilibrium, unemployment and inflation. The course also introduces students to economic methodology, including creating arguments, empirical verification and policy decision-making.
- **ECO 203 STATISTICS FOR DECISION MAKING 4 S.H. - V. Strohush** - Applications of statistics to create knowledge useful for decision-making. Bayesian probability, hypothesis testing, process and quality control and multivariate statistics, including multiple linear regression and forecasting are among the topics covered. A standard spreadsheet program will be used for most applications and oral and written presentation of statistical results will be required. *Prerequisite: MTH 112 or 121 or higher.*
- **ECO 301 BUSINESS ECONOMICS 4 S.H. - K. Rouse** - What functions do firms serve, and where do firms fit in a market economy? We will explore these questions by analyzing two perspectives. The first perspective is that firms are rational agents in markets, maximizing profits subject to the constraints of demand, production, cost and market structure. The second perspective is that a firm is a complex organization that has emerged in response to problems of information, strategy and value maximization. In the first perspective, firms are subordinate to markets. In the second, the firm can often coordinate activity more effectively than markets. How — and when — is this possible? Applied Microeconomics. *Prerequisites: ECO 111, one course from MTH 212, STS 212 or ECO 203, and either MTH 116 or 121.*
- **ENG 236 AFRICAN-AMERICAN MUSICAL AND LITERARY TRADITIONS 4 S.H. - P. Layne** - This asynchronous, online course is designed to introduce students to the artistic impact of American historical events and movements, such as slavery, Jim Crow, segregation, the Great Migration, and Black Nationalism on the joint development of African-American musical and literary traditions. Beginning with slave songs and the Negro spirituals, and moving through gospel,

the Blues, Jazz, & Hip Hop, students explore the ways in which these musical genres influenced African-American literary production. This course has no pre-requisite.

- **ENG 255 O1 QUEST IN LITERATURE AND FILM 4 S.H. - S. Braye** - Students will explore themes of journey and quest in world literature and film. We will pay particular attention to themes of identity and learning, as we examine the archetypes of quests and consider the relationship between the internal and external journeys that constitutes quests.
- **ENG 255 O2 THE GRAPHIC NOVEL: SPIDER-MAN TO PERSEPOLIS 4 S.H. - S. Proudfit** - This course will trace the development of the graphic novel from its roots in the superhero serials of Marvel and DC through the long-form alternative comics of Robert Crumb, Harvey Pekar, and the Brothers Hernandez (among others) to its latest form, in academically embraced works such as Art Spiegelman's *Maus*, Marjane Satrapi's *Persepolis*, and Chris Ware's *Jimmy Corrigan: The Smartest Kid on Earth*.
- **ENG 255 O3 UTOPIAN AND DYSTOPIAN LITERATURE 4 S.H. - M. Isaac** - An exploration of literary utopias and dystopias. This class will look at how ideas of race, class, gender, intelligence, religion, and environment in different eras shape the imagined visions of perfected and disintegrating worlds. This course will consider selections from authors like More, Perkins, Thoreau, Huxley, Le Guin, Atwood, and McCarthy.
- **ENG 340 EDGAR ALLAN POE 4 S.H. - R. Gill** - This course focuses on the life and times of one of America's most influential writers. We read Poe's short stories and poems, comparing them to other works about the psychology of horror and the supernatural. We discuss whether the strange events of Poe's life had as much influence on his writings as is often claimed. The course may count as one of the following requirements: the Literature requirement of the Expression component, partial fulfillment of the Advanced Studies in the Liberal Arts and Sciences from outside the major (for students not majoring in English), or as an Author's course in the English major.
- **ENG 371 MEDIA STORM: RHETORIC IN THE INFORMATION AGE 4 S.H. - M. Strickland** - This course is a rhetorical approach to media literacy and information age survival skills. Beginning with the advent of cable TV in the 1970s, to satellite TV in the 1980s and the World Wide Web in the 1990s, we are living in what media critic Tod Gitlin calls "a torrent of images and sounds" that overwhelm our lives. From "The Sopranos" and "Sex in the City" to "Survivor" and from MTV to C-SPAN and ESPN, we are awash in media 24/7. There can be little denial that even now, arguably still in the dawning period of the information age, in order to prevent citizens from being blown away by the data-storm of information technologies education must provide not only exposure to new media tools but also some principles of critical analysis about information technology and the rapidly changing paradigms of literacy in an information society. While we will be primarily concerned with television, the most ubiquitous of modern media, we will also be concerned with new media such as the Internet and home entertainment such as video and DVD, as well as more traditional media such as film, magazines and newspapers. Counts toward Advanced Studies from outside the major (for non-English majors) or fulfills elective requirements in the professional writing and rhetoric for the English major or the professional writing studies minor.
- **ESS 120 MEDICAL TERMINOLOGY 2 S.H. - J. Davis** - This course is an exploration of basic medical terminology. Prefixes, roots, suffixes and the combining vowels will be examined with special interest given to the use of medical terminology in correct context as applied to a variety of body systems and medical professions.
- **FIN 343 PRINCIPLES OF FINANCE 4 S.H. - W. Synn** - This course provides an introduction to the fundamental concepts and techniques of finance and might be subtitled "what every business major needs to know about finance." It is designed to provide students a foundation with regard to the key concepts from each of three major areas of finance — investments, financial markets and corporate or managerial finance. In the class, we will discuss issues relating to the financial markets, the time value of money, financing, valuation, investments and other topics. *Prerequisites: CIS 211*

and ACC 201; Pre- or Co-requisites: ACC 212 and ECO 203, or MTH/STS 212 (for statistics majors only). ACC 212 is waived for statistics majors only.

- **FNA 171 LAUGHTER AND THE FINE ARTS 4 S.H. - S. Tucker** - From Aristophanes to Family Guy, laughter has been an integral part of the arts from the earliest works to the present. This course introduces the fine arts, including literature, music, film, and the visual and performing arts, with an examination of how the arts use approaches like parody, satire, slapstick, and dark humor to express, entertain, instruct, and subvert.
- **GST 316 GROWING UP: COORDINATING COMPLEX SYSTEMS 4 S.H. - C. Ketchem** - This course will engage students in understanding cognitive, motor, social and emotional development in children from infancy to adolescence. Further exploration will include the etiology of neurological/developmental diseases or disabilities in children as well as how these affect the integration of each of these systems/components throughout a child's development. **This course is writing intensive.** *Open to students in the third or fourth year of study.*
- **GST 368 NUTRITION IN THE 21ST CENTURY 4 S.H. - B. Beedle** - The purpose of this course will be to explore ways that knowledge of nutrition will help you be a better global citizen. Topics include the role nutrition plays in helping you function better cognitively, emotionally, and physically; the cultural and societal trends and controversies related to nutrition in the 21st century; and ways nutrition knowledge can help you understand the world's problems such as food insecurity and food terrorism. **This course is writing intensive.** *Open to students in the third or fourth year of study.*
- **GST 372 MUSIC IN CONTEMPORARY AMERICAN CULTURE 4 S.H. - M. Buckmaster** - This course explores the role of music in current American culture. An interdisciplinary focus on the manner music is integrated in American social life, media, religion and politics will culminate in a research project examining this relationship. Music's function in America's cultural development will also be studied. **This course is writing intensive.** *Open to students in the third or fourth year of study.*
- **GST 375 PRISON NATION: DESCONSTRUCTING THE PRISON INDUSTRIAL COMPLEX 4 S.H. - P. Layne** - In a land that claims to be the greatest advocate of democracy and civil rights in the world, why are more prisons than schools being built? Why does America lead Western nations in the number of persons incarcerated? What factors account for the disproportionate number of minorities and the poor represented in America's criminal justice system? Why do women represent the fastest growing segment of the population going to jail? Is prison an actual deterrent to crime? Who are the people actually being incarcerated, the most serious offenders or those who have committed less serious offenses? Why has prison become a "resort" for some offenders? The course will utilize texts from various disciplinary perspectives to provide great springboards through which students might explore some of the complexities of criminal justice in the United States, the criminalization of various segments of American society and the ways in which the nation and private corporations benefit from crime. **This course is writing intensive.** *Open to students in the third or fourth year of study.*
- **GST 388 STATISTICS AND BASEBALL 4 S.H. - J. Burbridge** - The sport of baseball is fertile ground for sophisticated statistical analysis. Baseball executives, general managers and managers are relying on such analysis for decisions about player personnel, game situations and salaries. In this course, the students will first be presented with an overview of statistics and then apply statistical concepts to baseball. Students will also be responsible for a research project. **This course is writing intensive.** *Open to students in the third or fourth year of study.*
- **MGT 323 PRINCIPLES OF MANAGEMENT & ORGANIZATIONAL BEHAVIOR 4 S.H. - M. Valle** - This course will prepare the student for the challenges of management and leadership in the dynamic new workplace of the 21st century. The course examines the central role of management in the efficient and effective production of goods and services. Students will learn how strategic and operational planning, job and organizational structure design, and human behavior affect operations in manufacturing and service industries. Organizational behavior topics include

leadership and ethics, motivation and rewards, communication and teams, and teamwork. The global dimensions of management are also emphasized. *Prerequisite: BUS 202. Sophomore standing required.* Credit not given in the major for BUS 303 and MGT 323.

- **MKT 311 PRINCIPLES OF MARKETING 4 S.H. - S. Hodge** - This study of the marketing and distribution of goods and services includes buyer behavior, the marketing functions, commodity and industrial markets, merchandising considerations, price policies and governmental regulation of competition. *Prerequisites: ECO 111 and BUS 202. Sophomore standing required.* Course credit not given for both BUS 304 and MKT 311.
- **MTH 112 GENERAL STATISTICS 4 S.H. - A. Delpish** - This course provides an introduction to modern statistics. Students will analyze and critically interpret real world data. This course emphasizes written and oral communication, use of technology and collaborative learning. Topics covered include descriptive statistics, basic probability, inferential statistics including one-sample confidence intervals and hypothesis testing and regression analysis. A specific graphing calculator is required. *Prerequisite: MTH 100 or placement exemption.*
- **MUS 376 MASHUPS: HIP HOP AND ELECTRONIC DANCE MUSIC 4 S.H. - C. Stevenson** - This course focuses on the creation of original music derived from the practice of sampling prerecorded music and sounds. Topics include the generation and origins of sampling in hip-hop and electronic dance music, the analysis of stylistic and musical characteristics of sampling, and instruction on the use of digital audio workstations to creatively apply sampling to original material. Students who have completed MUS 271 may not enroll in this course.
- **PSY 225 MENTAL ILLNESS AND FILM 4 S.H. - L. Wilmshurst** - Hollywood depictions of mental illness have contributed significantly to the ideas and images many individuals hold about mental illness. Students will look at some of the major types of mental illnesses (depression, sexual disorders, schizophrenia, antisocial personality disorder) and examine how they have been portrayed, for better and worse, in popular films.
- **PSY 310 MEMORY AND MEMORY DISORDERS 4 S.H. - A. Overman** - This course is about the human ability, or inability, to acquire and retain information, to recall it when needed, and to recognize it when it is seen or heard again (i.e., encoding, storage, retrieval). The course is presented from the perspectives of cognitive neuroscience and clinical neuropsychology and will examine theories and research techniques involved in the study of memory. Topics to be covered include amnesia, false memory, emotional memory, individual differences in memory and memory disorders related to brain damage, aging, diseases and psychiatric disorders. *Prerequisite: PSY 111.*
- **PSY 366 PSYCHOLOGY IN CULTURAL CONTEXT 4 S.H. - G. Smith** - Issues in the related fields of cultural and cross-cultural psychology are considered in depth as students investigate basic psychological processes (e.g., motivation, cognition and emotion) in the context of how cultural world views and implicit value assumptions influence the development and functioning of human behavior and social interaction. *Prerequisite: PSY 111.*
- **PSY 367 PSYCHOLOGICAL PERSPECTIVES ON HUMAN SEXUALITY 4 S.H. - G. Smith** - This course involves the application of psychological theories and research to the area of sexual behavior. Emphasis will be placed on research techniques used to study sexuality, theories of attraction and love, sexuality across the lifespan, and variations in sexual response, attitudes, orientations and practices. Counts toward the Women's/Gender Studies minor. *Prerequisite: PSY 111.*
- **REL 238 RELIGION AND FILM 4 S.H. - P. Winfield** - This course looks at the importance of religious thought in world cinema. It considers a wide variety of films – from independent and foreign films to mainstream Hollywood blockbusters – that are either overtly religious or that have religious themes at their core. Background readings on film theory and select world religions will help students critically assess the form and content of each film through online discussion and assignments.
- **SCI 121 SCIENCE WITHOUT BORDERS 4 S.H. - F. Dillashaw** - This course will challenge every student to think critically about the biggest ideas produced by the natural sciences. Students

will learn how to think like a scientist as they explore the development of evidence supporting and applications for these ideas, which span atoms, the universe and everything in between. Also, student groups will use the scientific method to approach complex “real-world” problems that intersect with the natural sciences. Students are strongly encouraged to take this course during their freshman or sophomore year. This course does not carry lab credit.

- **SOC 111 INTRODUCTORY SOCIOLOGY 4 S.H. - A. Peeks** - This course provides an introduction to basic theoretical principles and research methods of modern sociology, including such issues as the relationship between culture, personality and society; the fundamental forms of social structure; social institutions such as religion and the family; and social processes such as deviance and social change. As part of the course, students will be introduced to the ways in which sociology is used to gain a deeper understanding of both current and time-worn social issues as well as helping students to understand the ways in which their lives and identities have been influenced and shaped by social and cultural factors, and also gives consideration to issues pertaining to social responsibility. The course provides a strong foundation, both in terms of practical learning skills and content, for upper level General Studies, as well as upper level sociology courses.
- **SOC 342 SOCIAL CONSTRUCTION OF DEVIANCE 4 S.H. - A. Franzese** - This course considers deviance and social control in societal context. Emphasis is placed on the ways deviance is defined cross-culturally and on the different ways deviants are labeled and treated. The course focuses on sociocultural explanations of deviance within such areas as mental and physical health, drug use, sexual expression, aggression and personal identity. The relationship between deviance and social stratification is examined. *Prerequisite: SOC 111.*
- **SOC 376 BECOMING A GLOBAL CITIZEN 4 S.H. - T. Arcaro** - In this course we will survey a wide range of global social problems including rape in the Congo, conflict (or “blood”) diamonds and minerals, the HIV/AIDS crisis, sex trafficking in Nepal, Thailand and elsewhere, issues related to global climate change, the wars in Iraq and Afghanistan, and other issues and news current during the time frame of our session. The lenses through which we will examine these problems include the basic theoretical perspectives found in sociology, but will also include a gendered approach. Students will actively research and discuss these topics and will be responsible for creating a “presentation” for the class on an issue of their choice. Students will be challenged to work together on a class project to actively address one or more issues. All work in the course will be geared toward deepening each student’s understanding of what it means to be a globally aware citizen in the 21st century.

## Graduate Online (only) Course Descriptions

- **MED 516 Educational Research 3. S.H. - A. Owusu-Ansah and E. Byrd** - MED 516 is designed to enable educators to become discriminating consumers and practical producers of action-based educational research. The course gives teachers the opportunity to develop the professional knowledge, skills and dispositions for critical inquiry and research development, preparation, analysis, interpretation and evaluation.
- **MED 522 Advanced Literacy Development 3 S.H. - B. Booker and R. Mihans** - This course explores the nature of literacy, including the critical features of the development phases of reading and writing. The course includes a study of the characteristics of developing readers and writers with special emphasis on effective instructional practices. A variety of instructional practices and literacy programs are critiqued in relation to what it means to be literate.
- **MED 532 Consultation and Collaboration Skills 3 S.H. - R. Bryan** - (Three sections with internship: Special, Elementary and Gifted education.) This course explores the collaborative nature of education with particular emphasis on developing the skills required to be an effective member of an educational team. The course includes examination of communication skills with a focus on those skills needed to form effective partnerships with families, community agencies, paraprofessionals, administrators and others involved in students’ education. Each section of the course allows

graduate students to exercise and refine the knowledge, skills and dispositions they have developed through their participation in the M.Ed. program. Students will work, in collaboration with Elon University leaders and fellow cohort members, to facilitate cognitive, affective and social development of P-12 learners by designing, administering and evaluating a summer learning enrichment experience on the Elon University campus.

- **MED 542 Foundations of Special Education 3 S.H. - T. Hughes** - This course addresses the evolution of the field of special education, its philosophical and theoretical foundations, legal underpinnings and current trends and controversies. Emphasis is on acquiring a broad knowledge base regarding exceptional learners and the programming needed to meet their unique needs. Family involvement is highlighted, and special consideration is given to issues of cultural diversity in terms of special education placement and services.
- **MED 545 Classroom Management for Exceptional Learners 3 S.H. - T. Hughes** - In this course graduate students are taught to analyze the disturbing behaviors of exceptional students in classroom environments and to design effective behavior management interventions. The framework of positive behavior support is adopted, providing students with varying levels of intervention dependent upon severity of their need. The importance of family involvement is stressed and methods for gaining family support are addressed.
- **MED 550 Educating Diverse Learners 3 S.H. - Staff** - This course is designed to prepare teachers to work effectively in today's inclusive classrooms. The course includes a consideration of a wide variety of diversity, including of ability; racial, cultural and ethnic diversity; linguistic diversity; and socio-economic diversity. An emphasis is placed on both cultural sensitivity and a solid knowledge base in historical and legal factors as being important in creating respectful learning environments.
- **MED 562 Foundations of Education of Gifted Students 3 S.H. - R. Bryan** - MED 562 is designed to provide graduate students with the historical and legal foundations, the key issues and trends, and the guiding policies of gifted students. They will examine the role of families, communities and the educational environment in supporting the development and education of individuals with academic and/or intellectual gifts.
- **MED 567 Social and Emotional Needs of Gifted Students 3 S.H. - G. Beamon** - MED 567 will introduce graduate students to the social and emotional issues that confront students who are gifted. Special populations, including gifted/ learning disabled, culturally diverse and those who are extremely precocious, will be considered regarding their unique characteristics and needs. An emphasis will be placed on programming and promising practices for these special groups of students.

## **Graduate Online (blended) Course Description**

- **MBA 595 TOPICS IN APPLIED MANAGEMENT 3 S.H. - A. Moorman** - This course allows students to develop independent projects relevant to their current place of employment or industries and careers that they may wish to explore. The class will be divided between on-site and online work and meetings. Working under the guidance of a management faculty, students will identify and analyze their proposed projects in the class for review and discussion by the entire class. Students will outline the scope and structure of their projects. Working online, students will develop those projects, sharing their progress with the instructor and fellow class members for continued review and discussion. The class will then conclude the semester with several on-site classes for final review and presentation.

The following courses are a few examples of outstanding - well organized, rigorous student engagement, and use technology to enhance instruction. Any of these courses could serve as models for digitally enhanced learning:

Scott Buechler	BUS 202OL	Business Communications
Karl Sienerth	CHM 174OL	CSI: Reality – Chemistry from the Cutting Edge
Prudence Layne	GST 375OL	Prison Nation
Matt Buckmaster	GST 372OL	Music and Contemporary American Culture
Clay Stevenson	MUS 371OL	Hip Hop and Electric Dance Music
Gabie Smith	PSY 367OL	Psychology Perspectives on Human Sexuality
Gerry Dillashaw	SCI 121OL	Science Without Borders

## APPENDIX F

### Technology Tools for faculty teaching online

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#### Tools supported by TLT

- [Moodle](#) is Elon's Learning Management System (LMS) or Course Management System (CMS) - online quizzes, discussion boards, gradebook, assignment submission and feedback, document sharing, attendance tracking, course reserves, MindsMesh, peer review, Nook Study, Piazza, and MathJax
- Adobe Connect for video conferencing and desktop sharing
- Wordpress Blogs supported by Elon
- Cloud storage services like Google Drive
- Tablets and other mobile devices
- Microsoft Office

#### Tools recommended by TLT

- Screen recording software like Screencast-o-matic
- Video services like YouTube, Vimeo, and TeacherTube
- Video chatting tools like Skype and Google+ Hangouts
- Webcams and microphones to record videos/audio
- Wikis like Wikispaces
- Instant Messenger applications like Gmail chat and Microsoft Lync
- Alternative presentation tools like Prezi and Google Presentations
- Movie editing programs like iMovie and Movie Maker
- Social media platforms like Twitter, Facebook, and blogs
- Open Educational Resource (OER) repositories like TED-Ed, Khan Academy, and OER Commons
- SCOLA.org to find video, audio, and text from international producers

In addition to these tools, TLT has developed a service catalog that highlights some of the technology tools that can be used for teaching and learning. This catalog is always a work in progress, as tools change on a regular basis. You can see the service catalog online at <http://www.elon.edu/web/academics/teaching/serviceCatalog.xhtml>.

If a faculty member approaches TLT about a tool other than those listed here, the TLT staff still offers support and guidance.

#### Ideas from TLT on digitally enhanced teaching and learning

The TLT staff gathered recently to brainstorm on how TLT can contribute to this year's initiative of digitally enhanced teaching and learning. Below are many ideas. If there is interest from our academic community, we would welcome the opportunity to develop these more and implement some of these ideas.

- Create a call for projects to encourage faculty to submit ideas to TLT
  - **Description:** Allow faculty the opportunity to enhance their teaching or research through collaboration with TLT on projects that require technological expertise or innovation. The process is competitive and a summary report is submitted upon project completion.

- **Benefit:** Faculty are recognized for their innovation beyond their department and get access to consultants. Technology tools and training are provided to award winners and selected faculty become mentors in their discipline.
- Flip entry-level courses
  - **Description:** Work with a group of instructors teaching the same entry-level course to develop materials that they can use in their section of the course. This would include recording videos to shift the lectures online, developing quizzes to check students understanding, and developing in-class activities. These entry-level courses could be courses that many Elon students take or even entry-level courses for particular schools/majors. The instructors participating in this group could be part of a “Fellows Program” similar to the CATL Scholars, where they would be provided time to experiment, given resources, and receive recognition for their work.
  - **Benefit:** Students would have more in-class time for engaged learning, and the burden of creating the online resources would be shared among several faculty.
- Develop learning objects to get non-majors (or remedial students) up to speed
  - **Description:** Create or find materials to help non-majors understand prerequisite concepts for a course outside their discipline.
  - **Benefit:** Students will start a course on equal footing, potentially leading to more meaningful classroom discussions.
- Elon Badges
  - **Description:** Faculty, advisors, and staff award badges to students to acknowledge accomplishments that don’t appear on an academic transcript (or even their experiential learning transcript). Students would collect badges in a backpack that they could take with them after Elon. Badges, together with their transcript, present a more accurate picture of their experiences at Elon.
  - **Benefit:** Reward students’ independent learning and out-of-class experiences.
- Collaborative Online International Learning (COIL)
  - **Description:** In partnership with a university abroad, faculty members from each country co-develop and co-teach a course online. COIL could be an extension of Elon’s study abroad program. Before a student travels abroad, they take a course with students in that country. More information on the COIL model can be found at <http://coil.suny.edu/page/getting-started>.
  - **Benefits:** Cultural interactions between students can build cultural confidence and an international experience for students who can’t/don’t travel abroad. COIL also fits into the Elon Commitment goal of “having an unprecedented university commitment to diversity and global engagement.”
  - **Side note:** Dan Reis, Instructional Technologist in TLT, was a part of a COIL course at his previous institution at North Carolina Central University. He has attended and presented at several conferences about COIL.
- Experimental classroom
  - **Description:** The experimental classroom will provide an innovative and intellectual learning-centered environment that is responsive and adaptable. It will provide faculty with a technology-rich classroom and support for experimentation in pedagogy or new instructional designs.
  - **Benefit:** This will support ideas, research, and projects developed by faculty and foster a dialogue surrounding innovation in teaching.
- Faculty technology advisory group
  - **Description:** This group would help identify problems they and their colleagues are having that may be solved with technology. Leadership of this group could be given to the Faculty Fellow for Technology.

- **Benefit:** This would help focus TLT's efforts on immediate needs in technology. The group would also be ambassadors to help promote TLT's services and learn about faculty who are doing cool things that TLT could share with more faculty. They could also help us identify and pilot new technology.
- Student technology advisory group
  - **Description:** Similar to the faculty technology group, a student-only group would meet to discuss and evaluate technology and TLT projects at Elon. It could be led by the elite Program's student staff, but could also involve students outside of the program as well. This group would be TLT's eyes and ears on campus.
  - **Benefit:** This group would help TLT identify problems students are having with technology on campus. They could also help identify and test new tools.
- On-demand resources for Elon
  - **Description:** Build a library of resources that faculty have created for their courses at Elon. Make the resources available to all students (or open to the world) so individuals have the ability to learn the content, even if they aren't enrolled in the course, and can do so in a self-paced format. This content could also go beyond course content and could include resources connected to speakers at Elon, the Common Reading, and post-college life topics. This content could be created in a such a way that they are mini-courses on particular topics.
  - **Benefit:** These resources would encourage independent learning, allow faculty to reuse or remix the content for their own courses, improve the intellectual climate on our campus, and could potentially be used to engage our alumni in topics of interest to them. These on-demand resources fit into the Elon Commitment goals of "launching strategic and innovative pathways in undergraduate and graduate education" and "developing innovative alumni programs to advance and support the Elon graduate."
  - **Example:** Carnegie Mellon has the Open Learning Initiative (<http://oli.cmu.edu/>) which offers online courses to anyone.
- Learning objects for our local community
  - **Description:** Partner with community educators (Elon Academy and others) to identify and create resources to supplement the materials those schools are currently using. Make resources available to everyone using Creative Commons licenses. This could be a collaboration between education and communications' students.
  - **Benefit:** Builds Elon's reputation as a community partner and could give students an opportunity to think about the learning process and build content.
  - **Example:** TLT is currently working with Jean Rattigan-Rohr to develop a Village Project Digital Story Book. The Village Project offers support to disadvantaged students to help develop their reading comprehension skills. Since its inception, The Village Project is now in Burlington, A&T, and Oregon, with more planned. Jean wanted to transfer some of their materials to an interactive online format. This will be for kids who need that extra help but also for those who have gone through the process and need a refresher.
- Health sciences and telemedicine
  - **Description:** Use telemedicine to learn from practitioners, to offer health services in remote locations, and to share real clinical experiences of second-year students with first-year students.
  - **Benefit:** Students in the classroom learn from peers and professionals in the field.
- Leverage public MOOCs in Elon courses
  - **Description:** Faculty assign the lectures, assignments, or forums from a publicly-available MOOC and use class time for discussion, activities, and digging deeper into the content.

- **Benefit:** Students would be interacting with learners from around the globe. Faculty would have more class time for student interactions. Faculty can supplement the MOOC content to match their learning objectives.
- Distance learning for graduate programs
  - **Description:** Develop a conversational training program for faculty teaching graduate courses online, similar to the online course design working groups (modeled after CATL).
  - **Benefit:** Sharing teaching strategies and techniques and discussing hurdles and accomplishments continuously improves the program. Seeing how faculty design and implement courses provides ideas for experimentation.
- Students studying abroad take courses from Elon faculty currently teaching on campus
  - **Description:** In collaboration with the study abroad program, Elon could offer courses taught either abroad or on campus to residential or abroad students for credit. For example, students on campus could take a course in Italian taught in Italy to prepare students for their study abroad experience.
  - **Benefit:** Diversify offerings and build community.
- Online course for incoming students
  - **Description:** Create a series of modules/tutorials to teach students basic skills prior to arrival or during their first year at Elon. For example, the course could focus on putting together a presentation, movie editing, or screencasting. Lynda.com is a perfect tool for this.
  - **Benefit:** Students are more prepared for their college experience and familiar with how to use the technology tools integrated into the curriculum.
- Support faculty field work and the creation of on-demand modules
  - **Description:** Utilize portable video kits and online tools for faculty to create repositories of on-demand learning modules (i.e. Loy Farms).
  - **Benefit:** Allows students to learn, regardless of external variables (like weather).
- Pilot tools in introductory courses to compare data (iPads, clickers, etc.)
  - **Description:** Identify introductory courses and have some of them participate in testing out a technology for learning. For example, using the iPad for note taking and composition in ENG 110.
  - **Benefit:** Seamlessly integrates technology and provides valid data to measure student results across courses who did/did not use the tool.
- Makerspace
  - **Description:** Incorporate a makerspace into the library to create transformative experiences for students and patrons. For example, someone can learn how to fix a blender by designing and then 3-D printing the broken part. Another person may learn to write code or build a robot through experimentation. This space encourages and gives people permission to tinker, hack, and reshape paradigms.
  - **Benefit:** Cultivate an interest in science, technology, engineering, and math through discovery learning.
- Online portal for campus
  - **Description:** A control center for each user on campus that can be customized to show the information he or she needs. The portal would include a universal campus calendar, student/faculty course information, badges the student/staff/faculty have earned, links to Moodle, email, OnTrack, and other campus resources relevant to the individual.
  - **Benefit:** A single place for the campus community to see information that is relevant to them. Students have commented that it's difficult to know about all the events happening on campus, and an online portal would help build community and communication between students, faculty, and staff.

## Updates on the faculty participating in the digitally-enhanced teaching initiative

- Tony Crider – We have heard that Tony is a faculty member of interest in this pilot, but we are not aware of the specific project. We will reach out to Tony to see how we can provide support.
- Jason Husser and Ken Fernandez – Michael Vaughn has reached out to them. We know they are interested in building online resources for students. Work has not begun on creating anything.
- Michael Strickland and Steve Moore – Michael Vaughn is working with them to put together materials to flip their courses and allow learning to continue without depending on good weather for Loy Farms. Michael put together a flipping kit that was funded by the provost. They are both enrolled in our summer course to learn more about flipping.

## Updates on TLT’s Summer Workshop

**Description of Workshop:** Simple Strategies for Flipped Instruction is a 5-week online course to help faculty flip a portion of their course for the fall. Flipping is the process of moving a student's first exposure to content out of the classroom to make room for more meaningful applications of that content in the classroom. The course explores the definition of flipped instruction, the benefits, the tools and strategies to pull it off, and ways to use your newly found in-class time. The course runs from July 15 - Aug. 12.

**Status:** Twenty participants are enrolled.

## Online course offerings: CAA Members and Associate Members

CAA Members	Offer online courses	Summer	Undergrad	Grad	Other online offerings
College of Charleston	YES	YES	YES		Program certificates and training
Delaware	YES	YES	YES	YES	
Drexel	YES	YES	YES	YES	Certificate programs
Hofstra	YES	YES	YES		Certificate programs
James Madison	YES	YES	YES	YES	Summer-only (Non-Degree seeking)
Northeastern	YES	YES	YES	YES	Certificate programs
Towson	YES	YES	YES	YES	Certificate and non-credit courses
UNCW	YES	YES	YES	YES	
William & Mary	NO	NO	NO	NO	
Associate Members	Offer online courses	Summer	Undergrad	Grad	Other online offerings
New Hampshire	YES	YES	YES	YES	
Albany	YES	YES	YES	YES	Certificate program
Rhode Island	YES	YES	YES	NO	
Buffalo	YES	YES	YES	YES	
Richmond	NO	NO	NO	NO	
Stony Brook	YES	YES	YES	YES	
Maine	YES	YES	YES	YES	
Villanova	YES	YES	YES	YES	

## **Technical Needs for building a SemesterOnline.org-like consortium**

If Elon is interested in building/being a part of a consortium that supports online learning, these are some of the needs that will need to be addressed.

- Allow non-Elon users access to Moodle or an alternative LMS using InCommon federated authentication\*\*
- Storage space in Moodle to accommodate the additional students, courses, and resources
- Policy on ownership of digital materials that faculty create
- Time to help faculty members redesign their courses for online
- Tools and time to work with faculty members to create multimedia content for their courses
- Discussion and decision on our model of building online course resources. For most of our work with faculty, we teach them the tools and the faculty member builds things on their own. If more materials are moved online, does our model need to change where we (TLT) are building more things for faculty, relying on them to be the content experts?
- Additional resources to ensure course modules are ADA compliant and accessible for all users
- Video conferencing application so online students can participate in face-to-face classes (this is a promise of Semester Online)
- Classrooms and/or studios connected with video capturing hardware and software including microphones, video cameras, and speakers
- Servers to store, monitor, and/or restrict video to necessary users
- Policy about tuition, credit, and rigor
- Additional resources and tools to ensure the course content is viewable on mobile devices

### **\*\*The Colonial Athletic Association Members**

- College of Charleston
- University of Delaware (Member of InCommon)
- Drexel University (Member of InCommon)
- Elon University (Member of InCommon)
- Hofstra University
- James Madison University (Member of InCommon)
- Northeastern University (Member of InCommon)
- Towson University (Member of InCommon)
- UNC Wilmington
- The College of William & Mary (Member of InCommon)
- University of Albany (Member of InCommon)
- University of Main (Member of InCommon)
- University of New Hampshire
- University of Rhode Island
- University of Richmond (Member of InCommon)
- Stony Brook (Member of InCommon)
- Villanova University (Member of InCommon)

InCommon is a consortium of universities and businesses that have agreed to federate their authentication by using Shibboleth. To federate authentication means that one school's users can use their home school's user login name and password to authenticate at another school. Each school would have to agree to a trust relationship. Once a student from one institution is enrolled in another institution's course, they could access the course through an LMS.