Executive Summary: Teaching and Learning Subcommittee

This report describes the distinct characteristics that our stakeholders value and hope to protect at William & Mary, highlights key national trends in higher education, and considers opportunities for change and ongoing challenges.

I. William & Mary's Approach to Teaching and Learning: Cherished Principles

A. Collaborative Teaching and Learning across Boundaries: Interviewees emphasized their desire to enhance W&M's interdisciplinary framework that contribute to the breadth of W&M's undergraduate education.

B. Research-Based Teaching and Learning: Scholarly research as a core component of teaching and learning at W&M.

C. Personalized Mentoring: Our relatively small size, favorable student-to-faculty ratio, and close-knit community facilitates personalized mentoring, often forging intense bonds that endure for decades.

D. Global and Experiential Learning Opportunities: Our wide array of experiential learning opportunities help our students to become active and educated global citizens.

II. Trends in Higher Education

A. Changing Demographics: The U.S. population is changing rapidly in ways that are already having profound effects on institutions of higher learning.

B. New Educational Technologies and Curriculum Delivery: Technological innovation continues to generate excitement and challenges within the academic community.

C. Challenges to the Reputation of Higher Education Institutions: A host of challenges to the status of US colleges and universities has recently produced a significant political backlash against the higher education sector.

III. Identification of Opportunities for Change and Ongoing Challenges

A. Barriers to Collaboration: Breaking Down Silos: One frustration that was echoed across campus was the perception that there is poor communication across units and departments. Some examples follow.

1. *Online Learning:* Now that we are experiencing success with online programs in two of our Schools, it is time to decide how to most effectively implement online learning the "William & Mary" way.
2. *Curricular Innovation, Joint Programs, and Interdisciplinary Centers:* One approach to engaging whole institution thinking is by encouraging collaborative environments that provide opportunities for interaction across programs, departments, schools, and units.
3. *Strengthening External Connections:* By sharing their expertise with outside entities, faculty gain the opportunity to engage in difficult and timely problems, expand their research, and garner funding. These collaborations also provide students with research opportunities beyond the classroom.

B. Improving Infrastructure and Support: Our organizational infrastructure is traditional and rigid, often acting as a barrier to innovation in teaching.

C. Domestic and Global Awareness and Inclusivity: Many are worried about the perceived value of a W&M degree. We need to start thinking more systematically about how to make our name and reputation better known throughout the country and the world.

Overview

This report on the present and future of teaching and learning at William & Mary is based on a robust and inclusive process (as described in Appendix A) that engaged campus stakeholders and assessed key national and global trends. In what follows, we describe the distinct characteristics that our stakeholders value and hope to protect at William & Mary. We then summarize national trends in higher education. Finally, we consider opportunities for change and ongoing challenges as we advance the strategic planning process.

I. William & Mary's Approach to Teaching and Learning: Cherished Principles

When we asked campus stakeholders what they value most about W&M's current approach to teaching and learning, four key themes emerged repeatedly. Together, these features of W&M's approach should be preserved and enhanced in any future strategic plan for the university:

A. Collaborative Teaching and Learning Across Boundaries

Respect for the liberal arts and sciences runs deep at William & Mary. Interviewees emphasized their desire to enhance W&M's interdisciplinary framework and to nurture unexpected intellectual collaborations that contribute to the breadth of W&M's undergraduate education. Representatives of our professional schools emphasized that W&M's approaches to the teaching of business, education, law, and marine sciences are themselves consistently interdisciplinary. Students, staff, and faculty alike expressed a desire to relate educational experiences to everyday life and to resolve the perceived conflict between providing a liberal arts and sciences education versus focusing on career preparation.

B. Research-Based Teaching and Learning

With near unanimity, our respondents emphasized scholarly research as a core component of teaching and learning at W&M. Engagement in research enriches and informs faculty members' teaching. Faculty also take enormous pride in W&M's success in engaging undergraduate and graduate students alike in "hands-on" work in laboratories, in field research in the U.S. and abroad, in internships and practicums connected to the classroom experience, in the process of scholarly publication (frequently with faculty co-authors), in creative scholarship, and in service learning projects with a research component. Students as well cite such opportunities as of particular importance in their evaluation of their experiences at W&M.

C. Personalized Mentoring

There is widespread agreement that W&M's tradition of direct mentoring of individual students makes our approach to teaching and learning special. Our relatively small size, favorable student-to-faculty ratio, and close-knit community clearly facilitate such mentoring, often forging intense bonds between W&M faculty and alumni that endure for decades.

D. Global and Experiential Learning Opportunities

A fourth theme that emerged consistently across our interviews was the value W&M places on international, cross-cultural, and experiential learning. Our status as the number one public university in the country for undergraduate study abroad participation, our inclusion of an explicit undergraduate curricular requirement for global and cross-cultural education, our wide array of domestic and international internships, and our promotion of domestic study away opportunities provide valuable experiences that support students' development as active and educated global citizens. These experiential learning opportunities also occur on campus where students assume leadership roles in co-curricular activities and university governance at a higher degree than at many of our peer institutions. Increasingly, graduate

students are also engaging in a variety of study abroad programs, international research projects, professional internships, and practicums.

In sum, our interviews revealed a set of core values for W&M teaching and learning that reflect and enhance those set out in our Vision, Mission, and Values statement: *We are a university that prizes an approach to teaching and learning that is collaborative, interdisciplinary, research-based, global and experiential.*

II. Trends in Higher Education

As President Rowe has said, in order to preserve what we value most, W&M will need to change to adapt to the contemporary challenges affecting higher education nationally and globally. Our subcommittee identified three key external trends that we see as particularly salient, each of them presenting challenges and opportunities for sustaining the W&M educational model summarized above. We have also included a list of external programs that represented cutting-edge models to consider in Appendix B.

A. Changing Demographics

The U.S. population is changing rapidly in ways that are already having profound effects on institutions of higher learning around the country. The population of high school graduates is decreasing, reflecting the end of the "baby boomlet" that produced the relatively large millennial generation. Small liberal arts colleges have been particularly hard hit by declining enrollments, and competition for the best out-of-state students will certainly intensify. At the same time, the U.S. population continues to become ever more ethnically diverse. America will likely become a "majority minority" nation sometime over the next three decades, with younger, college-age cohorts reaching this milestone much earlier. Attracting international students will also become more challenging given uncertainties surrounding U.S. immigration policy and the rise of alternative providers of higher education in countries like Australia, Canada, China, and the United Kingdom. Universities that fail to consider the needs and perspectives of this increasingly diverse youth population will be unable to recruit and retain sufficient numbers of undergraduate and graduate students.

B. New Educational Technologies and Curriculum Delivery

Technological innovation allowing for new forms of distance learning, certificate and degree programs, and the evaluation of student outcomes continues to generate excitement—and some apprehension—within the academic community. Various forms of e-learning and hybrid learning are now ubiquitous across the higher education landscape. New students entering U.S. colleges and universities increasingly expect that such options will be available in most or all fields of study. Private equity is also active in this field, with much investor attention now devoted to online "microcredentials" that can be "stacked" in order to fulfill an academic degree over time. Advances in artificial intelligence are already rapidly improving learning analytics, providing students with precisely tailored and nearly instantaneous feedback as they work to master particular skill sets.

These trends offer the prospect of reaching greater numbers of learners over a wider geographic distance, while improving learning outcomes and retention, both of which would have potentially significant positive impacts on institutional finances. They also provoke skepticism among many university faculty who have seen earlier overhyped trends in educational technology fail to fulfill their initial expectations, and who worry about the potential ethical and privacy issues that might emerge in a more fully automated educational environment.

C. Challenges to the Reputation of Higher Education Institutions

A host of challenges to the previously rarefied status of US colleges and universities has recently produced a significant political backlash against the higher education sector. Rapid increases in tuition costs have led to a host of studies claiming—mostly unconvincingly, but with undeniable public influence—that the economic benefits of higher education are overstated. The deep ideological polarization in the country is evident in public opinion polls and the increasing partisan divide about the social value of universities. The "Varsity Blues" scandal at a handful of elite private universities has undermined trust in higher education's admissions processes and general ethical standards. Students at many institutions of higher learning protest what they see as insufficient attention in university strategy and in the classroom to pressing social issues such as rising economic inequality and climate change. Universities are further challenged with the fast pace of technological change (such as advancements in artificial intelligence), making it difficult to predict shifts the global job market and to prepare students for an uncertain future. In sum, university leaders must adapt to these challenges and demonstrate clearly and convincingly that higher education prepares graduates simultaneously for career success, personal fulfillment, and practical engagement with urgent domestic and global problems.

III. Identification of Opportunities for Change and Ongoing Challenges

During our conversations with faculty, staff, and students we learned about various opportunities and challenges that were perceived from various vantage points across campus. Here we focus on three overarching themes from these conversations: barriers to communication and collaboration across departments and units, rigid infrastructures, and insufficient brand awareness.

A. Barriers to Collaboration: Breaking Down Silos

One frustration that was echoed across campus was the perception that there is poor communication across units and departments. We learned that while many offices across campus have significant overlap in teaching and learning initiatives, there is little coordination or communication between units. Although some units engage in ongoing collaborations, this is often due to individual efforts rather than to structural design. This piecemeal approach to providing curricular and co-curricular experiences leads to duplication of effort and inefficiency across the institution. Many innovative initiatives would benefit from consolidation, while recognizing the unique needs and teaching goals of each of our units. Although this whole institution approach should not be "one size fits all," there is a need to advance the following initiatives together with the goal of creating more innovative and effective learning experiences for our students, better teaching experiences for our faculty, and greater efficiency throughout the university.

4. Online Learning

One example of an initiative that would benefit from a whole institution approach is online learning. To date, W&M's approach to e-learning has been ad hoc and individualistic across units. While the Mason School of Business was the first to develop online courses and programs and the School of Education was close to follow, other units at William & Mary have been slower to adopt this approach. There are several reasons for this. One is a lack of resources to support faculty to engage effectively in this initiative across campus. For example, although there has been support for some faculty to spend time developing online courses in A&S, the elearning initiative does not have adequate staff to assist with course design on a greater scale. We note as well that there is as of yet no institutional plan to support accessibility and assistive technologies across all elearning programs at W&M. Given that the Business School, and now the School of Education, are experiencing success with the development of their online programs, it is time for

us to identify collective strategies, assess the resources available for this initiative, and decide how to most effectively implement online learning the "William & Mary" way.

5. *Curricular Innovation, Joint Programs, and Interdisciplinary Centers*

One approach to engaging whole institution thinking is by encouraging collaborative environments that provide opportunities for interaction across programs, departments, and units (for example environments that blend traditional areas such as humanities, STEM, and business, as well as relevant co-curricular or internship opportunities). Bringing people together from across the university allows us to share ideas and perspectives more effectively, conduct groundbreaking research that addresses real-world problems, and offer students unique learning opportunities. Undergraduate and graduate students alike show great enthusiasm for interdisciplinary and problem-driven questions that have direct societal relevance. For faculty, collaborating with others in interdisciplinary settings leads to a richer understanding of their own discipline. As mentioned above, faculty and students already benefit from various university-wide interdisciplinary centers and degree programs; and within A&S, the COLL curriculum has encouraged faculty to redesign syllabi in creative ways. However, these efforts often depend on continued resources from contributing departments and schools. Although further development of interdisciplinary centers and programs would require central investment from the institution, fruitful collaborations might be attractive to federal granting agencies, foundations, and corporate entities. To support these initiatives, we need to consider their funding structure as well as how to recognize faculty efforts during merit, promotion, and tenure evaluations.

6. *Strengthening External Connections*

In addition to bolstering lines of communication within the institution, we also need to strengthen our ties with external partners. William & Mary already enjoys some productive collaborations with external entities in the region. For example, we have a long and deep involvement in the Jefferson Lab, particularly within the Department of Physics. By sharing their expertise with outside entities, faculty gain the opportunity to work on teams to solve difficult and timely problems, expand their research, and garner additional funding. Importantly, these collaborations also provide students with research opportunities beyond the classroom. While we have structures in place for undergraduate and some graduate study abroad (through the Reves Center) and undergraduate research (through the Charles Center), we do not have institutional structures in place for managing internships with external entities. Instead, there are several offices on campus that currently manage some internship opportunities for students (e.g., Office of Community Engagement, A&S Graduate Studies & Research, the Charles Center, the Washington Center, the Cohen Center and the various career advising centers of the professional schools). Because these offices have already considered many of the logistics for creating effective internships for students, they should be consulted for their expertise as we develop a more robust institution-wide program for internships. We should also be sure to remember to be inclusive, ensuring that there are opportunities for graduate and professional students as well as undergraduate students when developing such a program.

B. <u>Improving Infrastructure and Support</u>

William & Mary is blessed with remarkable resources for teaching and learning such as Swem Library, the Writing Resources Center, and the Studio for Teaching and Learning Innovation. Yet our organizational infrastructure is traditional and rigid, often acting as a barrier to innovation. Although there are incentives for developing new interdisciplinary, team-taught courses through programs such as the Reveley Interdisciplinary Faculty Fellows and Reves Faculty Fellows Programs, there is not always ongoing support

to provide faculty and departments with the ability to continue offering these new courses. Even with more effective infrastructural mechanisms in place, faculty may still find it difficult to carve out sufficient time to reflect deeply upon their teaching, given multiple competing demands. Some faculty also fear that engaging in new teaching innovations is not a good use of their time. There are several reasons for this. One is the widespread belief that teaching is not valued to the same extent as research at W&M. While the creation of the new Studio for Teaching and Learning Innovation is a great step forward, we have traditionally done little to provide effective teaching support. Many of our faculty (like our students) are risk-averse and deterred from adopting new teaching pedagogies and content if they risk getting poor teaching evaluations. Institutional support for teaching innovation can occur in a number of ways, including providing time in faculty schedules for development of new teaching pedagogies and approaches, rewarding faculty who use innovative approaches in the classroom, and recognizing the efforts of those who engage in co-curricular opportunities such as study abroad, internships, and community engagement during merit, tenure, and promotion. We may also wish to consider experimenting with additional Credit/No Credit options for students enrolling in new, innovative course offerings as well as for introductory courses that serve as building blocks for higher-level interdisciplinary coursework, as a way of reducing student stress and encouraging students to explore creative curricular paths. Finally, we must not forget that teaching and learning at W&M relies on dedicated staff who often feel that their contributions to the student experience are neglected. Any expansion or reform of our approaches to teaching and learning at W&M must be accompanied by a clear-eyed assessment of the staffing needs involved.

C. Domestic and Global Awareness and Inclusivity

Many are worried about the perceived value of a W&M degree. We need to start thinking more systematically about how to make our name and reputation better known throughout the country and the world. By connecting with the global community, we could attract additional international students. This would provide our American students with an organic opportunity to learn about other cultures and a greater ability to understand and respect differences. We currently serve well over 1000 international students and scholars representing over 60 countries at William & Mary, who serve as ambassadors for W&M in their home countries and beyond. However, their efforts are clearly not sufficient to communicate the value of a W&M degree effectively. Going forward, we must develop targeted messaging strategies tailored to various domestic and international audiences, and to graduate and professional students, in addition to undergraduates. The creation of a new W&M School of Professional and Continuing Education and further expansion of teaching and learning at the Washington Center might contribute to engaging wider domestic and global networks of lifelong learners, supporters, and alumni.

As we diversify our student body in new ways, we will need to consider the unique challenges and barriers that are experienced by different groups of students and how we can effectively support them to help them thrive. In addition to a continued sensitivity to racial, socioeconomic, and neurodiversity issues, we will need to consider new demographics, such as the older, more mature student, or the student who is returning to school with previous career experiences. For all of these groups we must think about how we deliver our content, how we assess learning, and when and through what means (i.e., online, hybrid, face-to-face) we make this content available. As we further develop our teaching and learning approaches, it will be essential to develop an inclusive teaching environment that is welcoming and accessible to all.

APPENDIX A

Process

Our subcommittee is comprised of a diverse group of faculty, students, and administrators, including participants from four of W&M's five academic units and multiple departments across Arts & Sciences. The subcommittee met as a group once a month from October 2019 through January 2020, for a total of four meetings in all. We also shared ideas and information on an ongoing basis through Microsoft Teams and posted interview notes and other relevant materials on Box. We organized our subcommittee's Working Groups around four key themes: The Learning Environment, Pedagogy and Curriculum, Support for Learning, and Learning Outcomes. We also kept in mind the five "lenses" which all three Strategic Planning Subcommittees were asked to take into account: diversity and inclusion, resources, global perspectives, sustainability, and technology.

These four Working Group themes and five lenses served as the basis for our selection of a limited set of short articles about Teaching and Learning to share online with the campus community, as well as a longer list of additional readings for those interested in a deeper dive into particular topics. The Working Groups then carried out a series of interviews to assess what W&M does well at present, and what we can improve in the future. In all, we conducted approximately 50 interviews and a student focus group involving a diverse range of participants. We also designed a Qualtrics survey that was distributed to the Faculty Assembly, following up later with additional, more specific questions about worthy innovations in teaching and learning at our peer institutions.

Where gaps in our representativeness remained, we endeavored to reach out proactively to ensure that we heard from as wide a range of viewpoints as possible. In particular, our subcommittee reached out to the staff assemblies and to the W&M Washington Center to schedule additional interviews. At the end of the process, all Subcommittee Chairs met as a group to consider general principles for the drafting of the White Papers.

Committee Members

Stephen Hanson, Co-Chair, Vice Provost for International Affairs
Catherine Forestell, Co-Chair, Associate Professor, Psychological Sciences
Stephanie Blackmon, Associate Professor, School of Education
Lynda Butler, Chancellor Professor, School of Law
Fanchon Glover, Chief Diversity Officer
Mark Hofer, Professor, School of Education
John Swaddle, Professor and Chair, Biology Department
Elizabeth Thomas, Undergraduate Student
Tom Ward, Professor, School of Education
Bob Williams, Clinical Lecturer, School of Business

APPENDIX B

Referenced External Programs

During our interviews and through our survey, we asked individuals to identify external programs that represented cutting-edge models for us to consider. Listed below are those programs, brief descriptions and links for further investigation.

Colorado College (block program): This is a course delivery alternate model that divides the year into 8 blocks.

Tufts Experimental College: This is a program where faculty can develop and experiment with new courses.

USC SPEC Program: The Security and Political Economy Lab conducts interdisciplinary, policy-relevant research on issues at the intersection of climate change, security, and economic development. These research projects provide opportunities for undergraduate students to develop data science and other research skills & apply them directly to the policy challenges facing national governments and international institutions.

Harvard Graduate School of Education Project Zero. Has a focus on civic agency. Community-based problems and values are used to develop programs.

MIT Integrated Learning Initiative: MIT Integrated Learning Initiative (MITili) funds, connects, and shares research investigating human learning effectiveness.

Stanford Lytics: The Stanford Lytics Lab is an open, interdisciplinary research community. They advance the science of learning through the use of data and digital technology in college and life-long learning.

University of Maryland Center for Environmental Science: The University of Maryland Center for Environmental Science is a leading research and educational institution working to understand and manage the world's resources. They work across disciplines seeking solutions that improve people's lives and our natural world. They have a highly evolved mentorship program. Graduates find high-level employment in the public and private sectors, research, and environmental advocacy.

BYU Political Science Department: Have a very articulated student mentoring program**.**

MIT Brain and Cognitive Sciences Program: Their program emphasizes the computational aspects of the brain, while also providing good background in the psychological and physiological aspects.

Vanderbilt Neuroscience Program: This program requires computer science courses and a neuroscience laboratory research experience.

Princeton Interdisciplinary Neuroscience Program: This program requires a mathematical tools course specific to neuroscience and a neuroscience laboratory course. They also offer an elective track for students interested in specializing in computational neuroscience.