

## One M.Eng. | Cornell Engineering Master of Engineering Programs

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### The Big Idea

Cornell University's College of Engineering (COE) has a rich history of providing professional education through its many Master of Engineering (M. Eng.) programs. By building upon this legacy, exploring new programs, and introducing new levels of coordination through a unified **"One M. Eng."** approach, COE could offer a more coherent and culturally rewarding program that attracts more students and more effectively connects them to industry opportunities. Further, it could establish COE as a national leader in providing continuing education for a professional workforce.

A task force of M. Eng. directors and university program administration leaders determined that expanding the breadth and depth of current programming, implementing a more cohesive outreach strategy, and developing a more robust scope of online offerings, will produce immediate and long-lasting benefits for **educating industry-ready engineering professionals**, recruiting non-traditional students, and enhancing critical program support structures.

### Strategic Initiatives

**Expand traditional M. Eng. Programming:** Offer more opportunities for specialization and greater flexibility for both residential and remote students, create a professional internship program that becomes a hallmark of the M. Eng. Experience, and develop program pipelines that encourage diverse students to pursue professional engineering degrees.

**Build robust distance-learning models:** Provide high quality engineering education through a variety of degree and non-degree coursework, and launch a library of remote learning materials that will both attract corporate clients and satisfy the continuing education needs of their professional workforce.

**Increase institutional support for long-term success:** Amplify the online presence of M. Eng. programs to help prospective students and industry clients navigate a suite of attractive options for learning and partnership, triple the number of core staff supporting M. Eng. programming to provide more customized support to a rapidly-growing audience, and expand marketing and communication efforts to attract and retain a wider network of partners and scholars.

### Outcomes

The expanded and unified "One M. Eng." programming will provide modern, cohesive, and creative professional learning opportunities on interest a diverse and growing body of both traditional and non-traditional students. It will establish high quality distance-learning programs and raise the value of degree-bearing work through increased specialization and strong industry partnerships. These efforts will make Cornell a destination for training the current and future generation of engineers, managers, and leaders.

## SUMMARY

The Master of Engineering (M. Eng.) programs offered by the College of Engineering (COE) currently attract more than 1,300 students every year. Designed to put professional engineers on an accelerated career track — working either as applied engineers or as engineering managers — the M. Eng. degree is usually completed within one year.

Until recently, there has been no concerted effort to curate a cohesive M.Eng. experience across all fields. Outreach to students and industry has similarly been inconsistent. By adopting a “One M.Eng.” approach, the program stands to become more rewarding for those participating in it — and more coherent and attractive to those outside of it.

A new, more unified program alone can only change so much. There are additional opportunities to explore new programs, outreach strategies, institutional support structures, and online offerings that also stand to significantly enhance the depth and quality of — and enrollment in — M.Eng. programs.

A task force of M. Eng. directors and university program administration leaders explored these options and identified strategic actions in each area with the potential to produce immediate and long-lasting benefits for all of the programs that make up “One M.Eng.”

## NEW PROGRAMS

- *How can Cornell Engineering enhance its M. Eng. degree through new programming?*

The Master of Engineering (M. Eng.) program offered by the College of Engineering (COE) already attracts more than 1,300 students every year. Designed to put professional engineers on an accelerated career track — working either as applied engineers or as engineering managers — the M. Eng. degree is usually completed within one year.

There is increasing interest from students to expand the programming to pursue additional opportunities to specialize their skills and gain hands-on, real-world experience. While some fields already provide pathways for a third-semester extension, COE needs to standardize this practice across all fields and certify the process. This three-semester curriculum also aligns more closely with industry’s recruitment cycles, giving M. Eng. graduates a more competitive edge when they enter the job market.

Across the college’s M. Eng. fields, the goal is to use the establishment of an optional third semester to develop more variations within degrees — allowing for minors, concentrations and specializations within the overarching major field. The three-semester model also serves as a prime opportunity for the COE to formalize its M. Eng. internship program and help students learn about a range of viable career paths. The additional tuition revenue from the third-semester students is expected to quickly offset initial investment in program development.

Separately, the M. Eng. program will also consider opportunities to develop a dual M. Eng.-MBA degree with the S.C. Johnson College of Business in Ithaca and a dual M. Eng.-M.D. degree with Weill Cornell Medicine in New York City.

The overarching mission is to grow the structure of this professional program so that its expanded portfolio gives the most value to students and raises the college’s reputation. Over time, these efforts

will increase the quality and quantity of applications, improve retention and support better job placements for graduates.

### ***Recommendations***

#### **1. Develop an optional third-semester for all fields**

Nearly 20% of current M. Eng. students are already extending their degree programs for a third semester.

Most of this occurs through volunteered extension, in which students articulate compelling academic reasons to supplement their existing program with additional credit-based work. However, some necessary extensions also occur due to unforeseen circumstances that prevent students from completing graduation requirements on time.

The fields of electrical and computer engineering, financial engineering and engineering management have already experienced success with a third-semester, and increasing demand — particularly from international students — indicates an urgent need to establish similar options across the M. Eng. program.

COE aims to meet this growing demand by developing and certifying three-semester programs in all fields. Incoming students will be able to apply for these separately from the existing two-semester models, and clear framework will outline the parameters that distinguish both options. This process would replace the existing volunteered extension system, but students will retain the ability to switch from a two-semester plan to a three-semester timeline after enrolling.

It is essential that the college work with all departments and fields to coordinate and invest in additional course offerings, instructor time and teaching space. The Cornell University Graduate School and the Office of Global Learning can partner with COE to help adjust the admissions process.

The third-semester program model will ultimately drive enrollment, provide greater educational value to students and increase the stability of smaller field programs.

#### **2. Create more opportunities to build specific skills within M. Eng. fields**

In recent surveys, many M. Eng. students and graduates expressed the desire to take a third semester of coursework in order to expand their professional training and develop more career-ready skills. While some fields offer concentration tracks or specializations within their programs, COE must also develop the option for M. Eng. minor degrees.

A critical first step will be to provide better clarification and guidelines as to how concentrations, specializations and minors differ from each other. Currently, concentrations shape the internal student advising process within a particular field but do not enhance the degree awarded on students' diplomas and transcripts.

Ideally, specializations could be open to students from several related fields and be officially recognized upon graduation. This structure would share a similar framework to the proposed minor programs, and further analysis is necessary to determine the distinguishing requirements.

The college should prioritize the creation of M. Eng. minors, which have strong potential for helping COE stand out among its competitors and attract highly motivated students. After certifying the program's parameters, the COE will need to invest in additional resources to support these students, including faculty and staff for instruction and grading, as well as materials and maintenance for laboratory and project work.

The M. Eng. minor proposal builds upon the development of the three-semester model, giving students the necessary time to take credits that fulfill both their major and minor graduation requirements. Students will become eligible for applying to the minors after they have already enrolled in their major. They would submit their application before the end of their first semester, and acceptance will be conditional on their cumulative GPA, plus any other specific minor field prerequisites.

By offering these additional M. Eng. program components, COE will generate a long-lasting, lucrative model for its professional program — advancing students' career progression and graduates' overall success.

### **3. Formalize internship opportunities for M. Eng. programs**

In today's competitive corporate environment, COE graduates need to stand out in the workforce by coming in with both a specialized degree and industry experience. Here, internships play a crucial role in bridging the gap by providing specialized, hands-on learning opportunities.

The proposed three-semester model provides the ideal circumstances for M. Eng. fields to formalize an internship component, and the School of Operations Research and Information Engineering and the Department of Materials Science and Engineering are already moving in this direction.

Other programs currently offer informal internship opportunities, usually initiated by individual students and often resulting in a third semester of enrollment anyway. One proposal is for fields to develop a separate internship track alongside existing program structures, which would allow students to complete their internship in either their second or third semester.

To provide a successful, robust M. Eng. internship program, it is necessary to have college-level support that spans all M. Eng. fields. In collaboration with the Cornell Engineering Career Center, COE should invest in additional staff to build relationships with company stakeholders, help advise and match M. Eng. students, and develop the overarching professional internship framework — including duration, compensation, visa restrictions, and other logistics.

Establishing an internship component is a critical element in ensuring the ongoing success of COE's world-class M. Eng. program. Beyond academic excellence, it will allow COE students to gain exposure to company culture and start building professional networks. The hands-on work that they perform will not only enhance their resumé before graduation, but also provide valuable insight for their career opportunities.

This program will open the door to more COE partnerships with industry and broaden the college's reputation for training the next generation of engineers, managers and leaders.

## **INDUSTRY ENGAGEMENT**

- ***How can Cornell Engineering increase industry engagement in its M.Eng. programs?***

The goal of the COE M.Eng. program is to strategically increase industrial engagement to foster lucrative collaborations, increase student recruitment and to improve reputational standings. Existing programs are usually completed within one year, and they are designed to put professional engineers on an accelerated career track by pairing participants with the coursework and design projects that best match their interests.

Building on the university's founding principle to ensure that any person can find instruction in any field of study, the M.Eng. program seeks to develop new options for continuing education and distance-learning —for professional degrees, certificate programs, and individual courses.

It will also develop a standard outreach plan that provides a menu of options for company engagement. This will allow recruitment efforts to easily identify the best approach for mutual gain, while also offering flexibility within the unique partnerships. One critical step in this process is to develop an online landing page for all the M.Eng. programs — allowing perspective companies to navigate the available opportunities and see testimonials from other industry participants.

Additionally, it is important for the college to expand the marketing and communications efforts of the M.Eng. programs to help recruit a broader range of potential industry partners and students. These interactions can then fuel additional outreach efforts by providing the content for sharing success stories, profiles, events, and other news about upcoming speakers and visiting faculty.

Combined, these steps will not only strengthen industrial relations and expand COE's M.Eng. program, but they will also provide meaningful benefits toward the university's educational mission, financial growth and overall reputation.

### ***Recommendations***

#### **1. Capitalize on continuing education opportunities**

The rapid shift to working and learning remotely caused by the COVID-19 pandemic has altered the way that companies and academic institutions deliver their services. Companies looking to invest in the continuing education needs of their workforce expect more flexible options from colleges and universities. Whether they are looking to support their employees' pursuit of professional degrees, certificate programs or training courses, the demand for distance-learning options is rapidly growing.

The M.Eng. in the field of engineering management already launched its own distance-learning program in fall 2020, and the establishment of a distance-learning program for the field of systems engineering helped that field become the college's most popular M.Eng. program. Additionally, several faculty members have partnered with eCornell to develop successful engineering certificate courses.

To meet the needs of a changing world and to increase financial accessibility, the college needs to establish a suite of options for continuing education programming. In terms of industry engagement, providing companies with a more diverse portfolio of options will also allow the COE to attract a greater variety of participants.

The mission is to create distance-learning components for:

- Master of Science degrees

- Ph.D. degrees
- Credit-bearing certificate programs
- Non-credit-bearing certificate programs
- Massive open online courses
- Educational modules, housed in online libraries

The M.Eng. program should also consider developing offerings for in-person, non-credit-bearing training events, and conduct surveys to determine what type of events would be of most interest to industry participants.

Moving forward, the college must identify a subset of high-interest programs for creating the first wave of distance-learning programs. This process should start with a prioritized list of companies and work to identify the needs of those employers, such that the COE can enhance their professional development through continuing education programming.

In the next 10 years, the goal is to have all M.Eng. programs with enough enrollment go through the process of developing distance-learning offerings.

Successful outreach, increased participation, and better branding of the high quality and wide-ranging distance-learning options will create a cohort of companies who continually return to the COE for these experiences.

## **2. Standardize options for company engagement**

From recruiting future employees to increasing public relations with academia, industry members have multiple interests for collaborating with universities. Understanding the needs of these potential industry partners will help COE provide the necessary support toward growing the scope and depth of these relationships.

For the M.Eng. program, it is essential to develop an outline that demonstrates the industry value of engaging with such professional education — going beyond the scope of its curriculum and matriculation. Run as a public-facing website, this platform will serve as a menu, providing a one-stop-shop for industry to find attractive opportunities for collaboration.

By outlining the engagement options and establishing clear steps, this framework will make it easier for companies to initiate relationships, and it will help guide Cornell faculty and staff through outreach efforts. These cornerstones will standardize the experience on both ends and offer starting points from which unique partnerships may be formed.

Options for industry engagement that are visible on the M.Eng. landing page can be expanded over time, and they should support the following goals:

- Recruiting students and providing internships: *Increase traffic from industry partners seeking top talent and help them eliminate barriers to entry*
- Sponsoring M.Eng. projects: *Provide experiential learning opportunities for students while increasing exposure to industry branding*
- Curriculum engagement: *Raise the visibility of industry partners and provide recognition*

- Participate in distance-learning programs: *Increase enrollment for M.Eng. continued education and distance-learning programs*
- Join affiliated programs: *Expand overall engagement and bridge connections between companies and COE departments and schools*
- Philanthropy: *Attract more corporate support for M.Eng. programming and support college-level priorities*

With additional investment in a customer relationship management (CRM) tool, the college will be able to quickly track metrics across all these interest areas and help assess progress over time. Ultimately, this project will allow the COE to increase industry engagement and improve the success of its collaborations.

### **3. Increase industry involvement in M.Eng. design projects**

Experiential learning is a hallmark of COE's educational mission. Fostering a closer, dynamic and sustainable relationships with industry is essential to long-term institutional success, and these collaborations provide many benefits. Through industry-sponsored design projects, students gain opportunities to address real-world problems, interact with professionals in their field of interest and increase their awareness of specific engineering processes and challenges.

The goal of the college is to expand and improve all M.Eng. programs, as well as to develop the necessary infrastructure for fueling more prolific and effective and engagement with industry.

Such infrastructure should operate at the speed of business and demonstrate a deep understanding of both industry needs and university policies — including principles of academic freedom and unrestricted publication rights, conflicts of interest, nondisclosure agreements, disposition rights and intellectual property, tax-exempt facilities, private use and inurement compliance, fundamental research exemption, export controls and other legal hurdles.

Additionally, new programs and partnerships should offer the flexibility to match COE and industry needs. There should be options for working with research, design and combination projects, as well as the flexibility for participation among individuals, student teams and faculty. Collaborations need to consider the potential for projects to take place on-site in Ithaca, off-site and hybrid options. The framework should also have models for industry sponsorship both with and without financial support.

It is critical to invest in qualified personnel to manage these transactions, articulate strategic benefits to industry partners, align requirements and expectations, limit barriers to entry and market the variety of programming. This team should also be well-equipped to leverage alumni connections, increase relationships across business partners and expand the college's regional industry presence.

By investing in stronger industry collaborations, the COE will attract more top students, help M.Eng. projects reach a higher level of sophistication and develop new gateways that ensure graduates' success. Offering increased industry access to the college's unique talent pools and state-of-the-art academic facilities, will make Cornell the go-to place for subject matter expertise, basic research and translational science that supports viable commercial processes and solutions.

### **4. Expand marketing and communications efforts**

To ensure that the work expanding M.Eng. programs and attracting industry partners reaches its full potential, additional strategic marketing and communication efforts must help grow the COE's overall audience and demonstrate the value of collaborations between M.Eng. and industry.

It is essential that the college develop a main page for the overall M.Eng. program. Currently, each field manages its own sub-sites, which vary in structure and do not link back to central navigation. To boost the overall visibility and reputation of all the M.Eng. programming, a landing page should be created that makes it easier for prospective students, industry partners and other users to explore all the available options for continuing education.

This top-level webpage should link to all affiliated programs and include general language that describes the values of an M.Eng. education. The website needs to provide student recruitment tools, as well as those for industry recruitment, and provide a cohesive vision for M.Eng. programming and success. Integrating curated feeds of news stories, profiles, testimonials and social media channels will provide attractive and dynamic marketing content that drives public interest and engagement.

Investing in more COE marketing and communications staff is vital to supporting this effort — helping vet the website's layout and language, as well as curating the content that appears in news articles and social media feeds. Such staff can also help with event promotion, media outreach and industry partnerships.

Necessary to this process is developing strong relationships between COE marketing and communications staff, faculty, program managers, admissions officers, alumni affairs and development, and other partners on the university's affiliated central teams. These groups should work together to establish standards for the types of content and cadence of collaboration that they can support.

Additionally, the college should work with faculty to incentivize opportunities to work with marketing and communications teams, connect with media, participate in special events and partner with industry. By allowing these experiences to count toward promotional review, it will help create a culture that values open communication and mutual support.

Furthermore, the M.Eng. program should advance marketing and communications efforts by considering the following engagement opportunities:

- Run joint sessions with industry partners at conferences
- Encourage faculty to participate in industry events
- Partner with industry to spotlight student talent and excellence
- Invite top-level industry professionals to speak at Cornell events in Ithaca and in New York City
- Recruit top-level industry professionals to serve as short-term (virtual) visiting faculty
- Expand connections to diverse professional engineering societies
- Develop opportunities for M.Eng. alumni to connect with the college
- Host technical conferences and summer programs to recruit prospective M.Eng. students during their undergraduate education
- Expand diversity-specific grant-funded programs
- Establish stronger relationships across various functional areas



By taking proactive steps to promote individual and program-based success to target audiences, this marketing and communications strategy will increase the visibility of COE research and initiatives — bolstering the college’s broader reputation and attracting external partners.

## **RESTRUCTURING COLLEGE SUPPORT**

- ***How can Cornell Engineering provide more support for the M.Eng. program?***

COE must establish a sustainable framework for its world-class M. Eng. program that provides long-lasting value for all participants and stakeholders.

Its existing excellence is shaped by the breadth and depth of high-quality programming — enabling 70% of traditional M. Eng. students to receive employment upon graduation, with a nearly 90% employment rate 3-6 months after graduation.

Currently, the M. Eng. program supports more than 1,300 students across 15 different fields. Up to 25% of these students are admitted early, and about two-thirds of all M. Eng. students are international. Additionally, more than 250 students participate in distance-learning programs both in systems engineering and in engineering management.

To grow the overall program effectively, it is essential to invest in the staff who support the M. Eng. participants. For the COE to meet the current demand for student and instructor support, it must recruit four additional full-time staff members to bolster the work of the existing 2.3 full-time employees in the M. Eng. Program Support Office.

These new personnel will allow the college to create more valuable M. Eng. experiences through strategic work with a student services coordinator, an employer engagement and career services coordinator, a student support program director, and a distance-learning technology specialist and administrative assistant.

By increasing the ability of the M. Eng. Program Support Office to meet all the needs of its growing platform, the college will create synergy among programs, provide the necessary touch-points with participants, instructors and prospective audiences, elevate the standard of all its offerings and become more competitive.

### ***Recommendations***

#### **1. Invest in four new positions for the M. Eng. Program Support Office**

COE aims to increase the number of enrolled M. Eng. students and to raise the quality of services they receive. Through a unified, community-building approach, the college will foster the environment for a “One M. Eng.” program — ultimately ensuring the longevity and success of this vital professional education program.

Now is the critical time for the college to invest in sufficient staffing for the program, as there is currently only one dedicated position in the M. Eng. Program Support Office to work directly with more than 1,300 participants. Additional staff will provide value to both the students and the faculty and staff in relevant COE units who partner with the office for student services and other deliverables.

Increasing the number of dedicated M. Eng. Program Support Office staff will benefit students tremendously, allowing for the development of more targeted services, workshops and events. It will also ensure that each participant receives timely, personalized support and can more easily connect to other university services.

The four proposed hires should include the following roles:

- **Student services coordinator**
  - To be hired in fiscal year (FY) 22
  - Provides a direct line between university student services and M. Eng. students
  - Communicates important details and expectations regarding COVID-19 protocols, student wellbeing, university resources and international travel
  - Represents the M. Eng. community needs and acts as a liaison to both field staff and students
  - Supports distance-learning students and M. Eng. Internships
  
- **Employer relations and career services coordinator**
  - To be hired in FY 24
  - Helps increase employer engagement activities to grow the breadth and depth of interactions between M. Eng. students and industry
  - Partners with COE staff and faculty to help M. Eng. students build more productive and robust professional relationships
  - Develops networking and professional development events
  - Offers student career advising
  
- **Student support program director**
  - To be hired in FY 24
  - Supports professional development courses, career advising and events
  - Oversees both coordinator positions
  
- **Distance-learning technology specialist and administrative assistant**
  - To be hired in FY 25
  - Enhances the quality and quantity of distance-learning course offerings

The recent addition of an accreditation and recruitment coordinator position will also enable each field within the M. Eng. program to grow its offerings in accordance with individual department needs and goals. This new role will partner directly with COE faculty and staff to provide more equitable access to resources across the college.

Investing in the M. Eng. Program Support Office will boost current efforts and provide much-needed assistance to every M. Eng. field and its respective faculty, staff and students — both on and off campus.

Doing so will allow this college-wide support team to take a customized approach in providing the essential program structure to fuel overall M. Eng. growth — increasing student enrollment, expanding course offerings and fostering graduates' professional success.

## **DISTANCE LEARNING**

- ***How can Cornell Engineering improve online education opportunities for students?***

COE has a proven track-record of delivering high quality online education. Through close collaboration with eCornell and the Cornell Center for Teaching Innovation, the COE already offers two online M. Eng. programs, four courses, and about a dozen certificate programs.

Now, the college seeks to expand online offerings to provide a more robust suite of academic activities for residential students, remote students and non-traditional professional students. This work will provide more flexibility for students to pair coursework with other interests, such as study abroad, internships and employment opportunities. It will also help recruit a greater diversity of students from across the country — magnifying the positive impact of the COE in the real-world.

To increase distance-learning opportunities, the college should start by focusing on the needs of current undergraduate students and then expand options that fuel pipelines into M.Eng. programming. Successful programs can be adapted to better support prospective underrepresented minorities and women who are interested in engineering.

Additionally, the COE can use distance-learning models to tailor M. Eng. education to specific industries, create certificate programs for working professionals and provide smoother transitions between admission and graduation. All these areas show substantial potential for growth, and the college's renewed commitment to advancing distance-learning programs will allow it to increase its scope, success and reputation.

By investing in resources that incentivize course development and online teaching responsibilities, the college will create a sustainable model for working with departments, schools and faculty that ensures the long-term success of these new programs.

### ***Recommendations***

#### **1. Increase curriculum flexibility for current undergraduates**

To help COE's departments and schools develop online courses that provide immediate value, the college should examine ways to promote the flexibility of existing courses and programs — enhancing the overall quality of students' educational experience.

Currently, it is challenging for undergraduate engineering students to participate in study abroad programs while remaining on a 4-year graduation track. This is because other universities do not always offer comparable engineering coursework, or it may be too difficult for students to navigate in a second language. Online education could allow students to take core COE courses remotely, keeping them on a standard graduation timeline.

Each major should identify a subset of required courses and work to bring approximately a semester's worth of credit material online. Faculty overseeing related fields should also collaborate to see if there are common areas between departments and schools where they can partner to develop online programs.

Such offerings can provide more flexibility to students pursuing internships or employment before graduation, and they can help more students qualify for early admission into M. Eng. programs.

Both the Sibley School of Mechanical and Aerospace Engineering and the School of Operations Research and Information Engineering have already taken strides to use online learning to facilitate early admission for undergraduates transitioning into their respective M.Eng. programs. These new online programs have the potential to each support up to 30 additional fully-remote participants over the next 10 years. The School of Civil and Environmental Engineering is moving in a similar direction as well.

## **2. Develop new M. Eng. and certificate programs**

The success of using online learning for M. Eng. programs in the fields of systems engineering and engineering management, proves that COE can deliver high quality education remotely. Existing efforts have shown that those remote components provide synergistic benefits for in-person teaching and learning too. For example, online assets serve as additional resources for students, and they give faculty the flexibility to incorporate them into other teaching settings, such that the modules are developed once, but used everywhere.

It is important that new distance-learning programs consider the needs of working professionals who attend M. Eng. courses, trainings and certificate programs to enhance their industry-specific skills. This demographic will benefit from the decreased barriers to entry, and the online offerings will allow the college to recruit more broadly and increase the number of program participants.

Future course development should consider a wide range of online options for continuing education, including massive open online courses and resources libraries that allow participants to browse modules used in different programs.

If implemented, Cornell will become the top academic partner for meeting the professional development needs of companies and helping them meet their commitment to fostering continuing education for employees. Furthermore, this opens the door to other opportunities for the COE to partner more closely with industry.

## **3. Invest in resources that support course development and online teaching**

While eCornell, the Cornell Center for Teaching Innovation, and the James McCormick Family Engineering Teaching Excellence Institute are all key partners in developing high quality online programs, COE needs to directly support these efforts too.

The college should promote the creation of more distance-learning offerings by allowing departments, schools and faculty to apply for seed funding that will support the additional work of designing and implementing online courses. This seed funding could also help faculty recruit additional staff for instructional design or teaching assistance.

Additionally, the college must work with M. Eng. program leads, instructors and other faculty advisers to set expectations and approval processes for how students can best benefit from online coursework.

The long-term success and sustainability of online and hybrid programs depends on the college's ability to ensure that courses are consistently well-designed, developed and delivered — as well as fostering an environment where faculty, staff and students find such endeavors valuable and viable, both intellectually and financially.