Provost's Advisory Council 10/14/2021

8:30-10:00am, Lynch Center, Fulton 515

In Attendance

- Sharon Beckman (Chair)
- Tom Chiles
- Akua Sarr
- Joe Du Pont
- Fr. Greg Kalscheur, SJ
- Mary Ellen Carter
- Stacy Grooters
- Kelby Bibler
- John Mahoney
- Yonder Gillihan
- Gilda Morelli
- Karen Lyons
- Monica O'Reilly-Jacob
- Tom Wall
- Andrew Davis
- Sam Teixeira
- Diane Ring
- Jean-Baptiste Tristan
- Tracy Regan
- Julia Spagnola (UGBC)
- Ronnie Sadka
- Glenn Gaudette (guest speaker, Chair Human-Centered Engineering)
- Billy Soo
- David Quigley
- Joe Carroll
- Kate Gregory
- Michelle Elias-Bloomer
- Sasha Tomic
- Kirsten Davison
- Adam Krueckeberg (scribe)

Approval of Minutes

- The minutes from the September 9th meeting were unanimously approved.

Glenn Gaudette | Human Centered Engineering

- Glenn Gaudette (GG), John Kozarich '71 Chair of the Department of Engineering, was introduced by Sharon. He provided some background biographical information as well a brief synopsis of his work in biomedical engineering, focusing on Cultivated Meat Production as an example of a problem the solution to which requires collaboration beyond engineering (new economic models, nutrition, social concerns, ethics, etc.)
- BC's first engineering cohort is now on campus. The 29 students are about 60% female, which is unusual for engineering programs. The program is focused on providing the technical knowledge needed, but also on attracting and forming students who want to make the world a better place for others. The program's location within the Morrissey College is perfect for this reason. Engineering faculty are constantly looking to find ways to bring non-technical content into the engineering classes and program. They have been using tools like concept mapping to help students lay out the path by which they can leverage all of their knowledge and skills to become the kind of engineer they want to be.
- Glenn introduced the initial engineering faculty and the department's teaching philosophy, which is that every student admitted can succeed – there is no "washing out" process, though the faculty will support students who wish to transfer to a different path based on their

developing passions. Learning is project-based and collaborative rather than competitive and should be fun. Highlights include:

- 1st year analysis lab to apply theoretical concepts in the real world
- 2nd year foundational engineering courses
- 3rd year begins to offer technical electives and the Collaborative Service Engineering Project – a program which requires partnership with other schools and departments to get students out into the communities, talking to real people in order to deeply understand real-world problems. This program offers engineering students an opportunity to learn how to work with non-engineers, a critical skill for today's engineers.
- 4th year capstone project – incorporates knowledge from both technical and non-technical courses.
- Weekly hour-long reflection session all four years to talk about what the students really want or need and incorporate vocational discernment.

- Questions from the Council:
  - What is attracting women into the program? Glenn indicated that the human-centered approach appears to be more broadly attractive to those who want to solve real-world problems. Being less concentrated in math and science, which is so male-dominated in most contexts, also helps.
  - How do you expect the program to scale? Glenn mentioned that we brought in 29 this year against a target of 25, and are looking to recruit 50 next year and each year thereafter. Over time, that will build up to 200 students across four years, which appears to be an appropriate level, but around the end of the decade, we'll evaluate if that's still the right number. David added that a strong engineering program not only benefits those 200 students, but will strengthen the experience for all undergraduates as they interact with this cohort in different ways.
  - What is the role that data science plays in the curriculum? GG – very important. All students take data science, programming, machine learning, and AI. Just one course is offered currently, but we are building more technical electives. We are also working on courses cross-listed with computer science. David added that there will also be important linkages to Schiller, including an entire program in data science which could be partnered with engineering.
  - Do they take the Core? GG – yes. Our students are going to need to be better engineers than the previous generation, which created a lot of our current problems. They need to be taught to understand and anticipate unintended consequences, and to see the full scope of the problems they're trying to solve, not just the technical aspects.
  - How will these students compete in the market without an engineering specialty (mechanical, civil, etc.)? GG – we are offering a general engineering degree, which is actually quite common. Our students may have a specialty in one of our focus areas (health, energy, environment). They will not necessarily be interested in positions for engineers in very specialized roles, but their ability to work with people and be collaborative with those in other disciplines will make them very attractive to employers. Most engineers don't have the specific technical skills needed by a specific employer anyway – they typically get that on the job, and we're giving them the

fundamental framework to do so. We're also preparing these students not just for their first job, but for management, particularly in terms of team and project leadership.
    - How does global / international thinking relate to the engineering program? GG – absolutely critical. One example might be pairing engineering students with CSON service trips to Nicaragua to see problems on the front lines and figure out how to solve them. We're also looking to work out a curriculum that will allow engineering students to study abroad.
- David added that the human-centered approach is a great example of what makes BC unique. Although change comes hard at a University, at the most recent Board of Trustees meeting, Phil Schiller spoke to how impressive it is that we've gotten this up and running so quickly. It's a great example for us – we should all be asking what else does BC need to be? Using engineering as a model – what other mission-driven, mission-aligned innovations might we want to see here at the University?

John Mahoney (JM) – update on QuestBridge (QB)

- The first cohort of QuestBridge students has just enrolled this semester.
- History and approach: QB has been around since 2004 to connect high-achieving low-income students with the best colleges and universities. Many of these students did not have the school counseling or information needed to apply successfully. QB estimates that there are some 30,000 such students who "undermatch" each year. To address the problem, QB is a non-profit organization that has built relationships with high schools and community-based organizations across the country that are good sources of these students. They're primarily an online platform, but also run camps during the summer to help students prepare for college and the admissions process. They work with about 15,000 students each year and of those, they identify about 2,000 to be "match" students who will end up enrolling at one of the 45 QB partner colleges and universities. Colleges can express interest in being a partner, but it's up to QB to select members of their network based on a demonstrated commitment to enrolling, supporting, and graduating low-income students. The rewards—and costs—are significant. Each University pays $25,000 per year plus a fee for each student matched. Additionally, the school must commit to a scholarship for each student that covers 100% of tuition, fees, room and board with no job and no loans. The school must also form a QB scholar's network on-campus.
- In 2018 we entered into this process after considering the financial implications and advantages with regard to recruiting students. We connected with QB, and based on our profile and the many support programs we have here (Monserrat, etc.), we were chosen. We announced a year later in January 2020, and committed to support 50 match scholars, much bolder than many partner schools. These students applied as of 11/1, and 800 (of the 2,000) QB students identified BC as a possible match, with rank-order. We reviewed all 800 and rank-ordered the students as good matches for BC. When the match occurs, the agreement is that the student will attend (similar to Early Decision). We matched with 50 and had only 1 "melt" over the summer, so we admitted 49 through the match process. We also enrolled an additional 57 QB students during the ED2 and RD processes – they are almost all Pell-eligible, 80% are AHANA, and more than 20 states are represented. These additional students are those who worked with QB and were identified through their network, but were not among the 2,000 (of 15,000)

chosen to be "match" scholars. They receive BC's regular financial aid package, which still meets full need but which includes a work-study job and a small federal loan.

- Questions from the Council:
    - Integration into classes and other aspects of BC life can be difficult for low-income students. What are the most important ways we're helping these students thrive? JM – QB students come to us with different backgrounds and experiences from students who've enrolled in other programs we've run – most of these students are coming in very well prepared. Some do participate in the BC First summer program, and we're also connecting them to the Monserrat Coalition and other support resources here to ensure they have the network they need. Many leaders around campus have come out to volunteer to help. The QB Scholars network is also going to be critical – as we build up a multi-year community, the students will be helping one another and ensuring they understand all the resources available to them.
    - Why does QB only end up serving 2,000 of the 30,000 identified as potentially eligible? JM – these students are so spread out, it's very difficult for individual schools to get to the many high schools and community-based organizations that can identify these students. QB provides a better pathway, but there's still only so much they can do, and they're limited by the number of "matches" schools are willing to provide.
    - Does QB have any reporting or assessment requirements for these students? JM – we certainly have some reporting requirements, but details are still being established. Part of the QB organization's responsibilities is student and alumni tracking.
- David added that QuestBridge is an important element of our overall institutional commitment to diversity. The number of Pell-eligible students has gone up by one percentage point in the last year, at least partially, due to our QB partnership.

Provost's Report

- Travel has returned. David recently traveled to meet alumni in Chicago, and John Mahoney was at the National Association for College Admission Counseling meeting in Seattle recently. There has been no change in BC policies since our last meeting, other than the increase in testing volume. The lack of a spike in positivity after Parent's Weekend has been a pleasant surprise.
- A Council member asked if we have evidence about the mental health impacts of masking? David mentioned that this is a growing body of literature, much of which is coming out of the K-12 setting. We'll continue to pay attention to what the data is saying.
- A recent article in BC Magazine mentioned the University Academic Senate, a body which existed some 50 years ago. It was comprised of students, faculty, and staff, and included some 70 members at its high point. This body ceased to exist by the mid-70's, and the University statutes created other bodies for shared governance in the late 1970's.
- It has been great to see the number of events occurring in a more pre-COVID normal delivery mode – the Lilly conference inviting over 150 scholars to meet in-person is a recent example. Limitations on travel persist, though most faculty travel is being approved by the Provost's office as requests come in.
- This weekend, the Class of 2020 graduation celebration will take place. Over 1,600 undergraduates are expected for the festivities, which will include some reunions, the NC State football game, a Baccalaureate Mass, and a University degree recognition ceremony. The

speaker will be Steve Pemberton, who was the class's first-year book author and speaker. There will be five school-specific ceremonies thereafter, at which they'll receive a parchment, handshake, and a commemorative coin.

- 245 Beacon Street (the building which will house the Schiller Institute) will be opening by January. We're expecting a temporary Certificate of Occupancy to be granted in late November. The project is on schedule and under budget. Laura Steinberg is getting ready to launch our first faculty searches for 2-4 scholars this year.
- The BC Law School dean search is proceeding apace – many stakeholders have weighed in during listening sessions and via a community survey. We hope to be able to post the position description soon.
- We are now in year seven of Core Renewal, a good time to take stock. The courses have made a significant impact on our students. Please think about what's next: additional capstone offerings, new opportunities for Sophomores, etc.
- Thanks very much to the many PAC members who have served on faculty search committees over the past year. We hired 38 new faculty members, including a majority of women and the largest cohort of black faculty ever. We must extend these trends: we've authorized a much more robust group of searches for this year, and need to continue to use this opportunity to shape our community into the kind of diverse, welcoming community we all want to see. Billy added that of the 38 non-visiting full-time faculty, over 40% are AHANA, and over 20% are Black faculty. These ratios persist even if we include visiting faculty: overall, we've hired 63 total faculty in the past year, again 40%+ AHANA and 20%+ Black faculty.
- We are not yet out of the woods with regard to the Pandemic; however, we appear to be moving past the time of crisis, and need to look at and re-start work that might have been put aside back in early 2020. Three examples:
    - The Mission Priority Examen;
    - NECHE accreditation --- we're at our five-year interim report point which will evaluate things like assessment of student learning; and
    - The regular rotation of Academic Program Reviews – an appropriate moment to think about the many opportunities to strengthen and extend BC's mission.