Graduate Council 2020-21

February 4, 2021

Members present: George Boulukos, Phillip Chu, Saran Donahoo, Otis Duncan, Buffy Ellsworth, Themistoklis Haniotakis, Karen Jones, Usha Lakshmanan, Junghwa Lee, Liliana Lefticariu, Ruopu Li, Adrienne Long, Matt McCarroll, Trish McCubbin, Caleb McKinley, Grant Miller, Marc Morris, Rachel Nozicka, Julie Partridge, Kyle Plunkett, Yuhosua Ryoo, Thomas Shaw

Ex-Officio: Scott Collins, Lizette Chevalier, Gary Kinsel, Meera Komarraju, Stephen Shih

Proxies: Tori Neal (Nicholas Sanislo)

Guests: Jessica Cataldo, Farhan Chowdhury, Matthew Giblin, Gireesh Gupchup, Rick McKinnies, John McSoroley, Jane Nichols, Alireza Rezeghi, Michel Burgener

Meeting started at 8:02 AM

Morris: Good Morning. Corrections to the minutes?

Corrections were given

Morris: Motion to approve the minutes?

Moved

Seconded

Minutes approved (16-0-0)

Morris: Let's start off by welcoming Dr. Gireesh Gupchup. He is VP for Academic Innovation, Planning, and Partnership for the SIU system. He's going to provide some remarks and give a brief overview of the strategy he's been working on for the system.

Gupchup: Thank you for giving me the opportunity to meet all of you. I'm going to give a quick introduction before talking a little about the strategic plan. I moved to the SIU system in 2004 from New Mexico and I helped to start the Pharmacy School at SIUE; I was at that position for 17 years. Moving to the Systems Office has been a learning curve. The Board of Trustee has charged my office with developing a strategic plan, which I am going to overview now. The system has never had a strategic plan that wasn't designed by stakeholders. Now, we are coming together to synergize. Our overarching, collective theme is to find a common 'why'. For the sake of our students, campuses, and communities, what can we do together to improve what we do individually? How can we realize synergizes? Working groups were first formed in March of last year, and they were charged with coming up with things the campuses can do together. There were 8 working groups in total, with each group having 4 members from SIUC

and SIUE apiece. Once the Strategic Planning Committee was formed, we surveyed our stakeholders, including faculty, staff, alumni, and students. We got over 3000 responses. Our schematic process is as follows: collect survey data, look at competitive analysis, develop working vision, mission, and goals, seek approval of the working vision, mission, and goals, and, finally, form committees that address the 'goals'. The committees will take each goal and develop objectives and metrics. Essentially, the objectives allow us to achieve the goals, goals allow us to achieve our mission, and the mission allows us to achieve a vision. This step will take roughly 2 months. Our working vision is for our people to transform the world. The working mission: 'The Southern Illinois University System enriches lives and communities through inclusive excellence, experiential education innovation. The system creates and shares knowledge, and allows all individuals who achieve their full potential, serves as an economic catalyst for the region and state, and advances global change and understanding.'

Once we found are working vision and mission, we had to find what the themes that would allow us the mission would be. We have come up with five themes or goals: academic innovation and student success, diversity and equity and inclusion, community impact, research and creative activity and partnership, and faculty, staff and infrastructure. We will have time for everybody to give feedback the Strategic Planning Committee finalizes the working vision, which we plan to do in summer. It is our hope that the Board of Trustees approves the plan before the start of the next fiscal year. I think that bringing together all of the campuses will end up making us much stronger. We have disciplines on the Carbondale campus that aren't in Edwardsville, and vice versa. If we want to build solutions that are more sustainable and global, bringing things together is a great initiative. I'd be happy to answer any questions.

Questions for Dr. Gupchup:

Lakshmanan: How much thought has gone into how the plan will be implemented? I also want to comment that, historically, collaboration between campuses have come from grassroots movements, whereas this appears to be more top-down. It would help if you could speak to this concern.

Gupchup: You are absolutely right. The most enduring collaborations are always from grassroots efforts. Our working groups consisted primarily of individuals at grassroots levels; our Goals committees will as well. We are striving to get as much input as possible, whether it's from the survey or the townhalls. I hope that our plan doesn't appear as top-down as you suggest. Did that help answer your question?

Lakshmanan: Yes, thank you. I do have a follow-up comment. I don't believe that 'townhalls' denote a structure that is inherently grassroots. I would suggest focus groups instead.

Gupchup: This is a really good suggestion. If you don't mind, I'll reach out to you regarding gleaning further input. I'll admit that I don't have much expertise in focus groups. I never thought about the denotation behind 'townhalls'.

Lakshmanan: It makes me think of presidential elections and the like. And we know how those turn out.

Jones: Can you talk about how the Systems strategic plan will fit with SIUC's plan?

Gupchup: We hope that the Systems plan will be ready a little before Carbondale's plan. In general, Carbondale's plan will focus on the strengths of Carbondale. We hope that the larger plan will include strengths and opportunities of each campus individually; there should be quite a lot of overlap.

Jones: Having been on several strategic planning committees, I know that this campus puts emphasis on grassroots efforts. The Listening and Learning tour has done this, for example.

Gupchup: We should achieve a tighter collaboration between each campus and the SIU System, as there are faculty, student, and staff groups that meet with directly the president.

Remarks from the Provost:

Komarraju: Good morning, everybody. I have a few topics for today. As you know, we are in Stage 4 of Restore Illinois; we can now have gatherings of up to 50 people. I spoke last meeting about the importance of the faculty submitting grades on time. For Fall 2020, there were 131 individual grades that were not reported (NR). To give some context to this numbers, Fall 2019 had 283 NR grades. Fall 2018 had 550 NR grades. We are working to get this number to 0. As a friendly reminder, we do not have a Spring Break this semester. We are aware of the effects this can have on students, so we will have a mid-semester Spirit Week, with activities spanning across each day. In terms of the safety protocols, we are doing everything we did in the Fall, including providing masks and wipes. In terms of the reorganization, 9 RME's that were submitted to the Illinois Board of Higher Education were approved. The Dean searches for the College of Agriculture, Life, and Physical Science and the College of Health and Human Sciences are ongoing. Lastly, I have an update on enrollment and retention. We are actively tracking how many students we are bringing in for Fall 2021; our goal is to bring 1400 freshman students and 1200 transfer students. Every week, we are meeting with everyone involved in recruitment efforts. We are ironing out any gaps in our processes. In terms of our retention numbers, out of 1361 incoming freshman for Fall 2020, we were able to retain 85.1% into this Spring semester. We believe this is a very good number. One reason given by non-returning students is the dissatisfaction on the online format for courses. As a comparison, the past two Fall-to-Spring retention rates were 90.8% and 89.2%. Every Monday, we receive updated tableau data. We

are trending in a positive direction for undergraduate and graduate students. For example, graduate student applications are at 973, which is about .002% lower than same time last year. Admissions for those students are 89, which is 46% higher. Our transfer numbers, however, are facing challenges. We are trending in a negative direction, but, each week, we are catching up.

Questions for the Provost:

Shaw: In regards to retention numbers from Fall to Spring, you mentioned in was 85%. Do you have any comparison data from SIUE or other state schools?

Komarraju: That kind of data isn't reported. Usually, we receive Fall-to-Fall comparison numbers. I don't believe, however, that our numbers are very different from other universities.

McCubbin: What are your plans for what Fall will look like? Will there be a two-track approach?

Komarraju: We spent a lot of time on Dean's Council regarding this very topic. At the end of March, registration for Fall 2021 will open. Right now, we are planning for a traditional semester, but we also have a Plan B. The back-up is continuing what we've been doing: asking professors for their preferred modality. We are hoping that we will have a clearer picture in March.

Jones: What type of modality will students and advisors for registration?

Komarraju: We are posting the traditional mode, but advisors will have access to Plan B, which they will share with students. In the case we implement Plan B, students won't be surprised.

Remarks from the Vice Chancellor of Research:

Kinsel: Good morning, everybody. I have a couple of reminders. Nominations for the Scholar's Excellence Awards are due February 5th. The applications for the undergraduate REACH Awards are also due the 5th. We are always in need of judges for REACH, so please get in touch with my office if you are interested. I have some new announcements as well. We've hired a new Director for the Office of Sponsored Projects Admiration. He is scheduled to start February 15th. Registration for our Virtual Research and Creativity Activity Forum is now live. Students wanting to participate will be given a website to post their contribution to a week prior to the forum. On April 15th, the day of the event, there will be a morning session where students can meet and interact with the judges. On the afternoon, there will be a public viewing session. Finally, there will be a closing session, where the prize winners will be announced. We are trying to make this as close to the face-to-face forums as possible. Please encourage your students to make a

submission. Finally, I had just learned that one of our graduate students won Best Graduate Student Presentation at a sustainability conference held through the Illinois Innovation Network. This student works in Environmental Policy and her presentation was titled 'The Perceived Role of Communities and State Officials in Solid Waste Management in Ghana West Africa.' Congratulations to the student and her advisor.

Questions for the VCR:

McKinley: Can I get in contact with the student who won that award? GPSE host their own research awards, and I think that this is someone who should be nominated.

Kinsel: Yes, I'll send you her information.

Remarks from Dean of Graduate School:

Shih: Good morning, everyone. I have a few quick updates for today. First, the Graduate School will be hosting the virtual 3MT competition February 5th. The competition will start at 2:30 sharp. This year, we have 21 participants, who will be presenting through Microsoft Teams. The event will be recorded and later posted on the Grad School website. 3MT offers three cash prizes: $800, $500, and $300 for 1st, 2nd, and 3rd place winners respectively. Additionally, the 1st place winner will represent SIUC at the Midwestern Association of Graduate Schools on March 26th. I would like to express my gratitude to the Provost and VCR, as their financial contributions make the awards for 3MT possible.

In two weeks, the Graduate School will be hosting two workshops for the Directors of Graduate Studies and their assistants. This year, we are going to be using a format that's a little different. Each session will now target a different audience. The workshop on February 7th is for the less-experienced directors and staff. We are going to provide on overview on all relevant areas of the jobs, as well as giving some tips. The second session will be held on February 18th and it is designed for the more-experienced staff. For this one, we are providing updates and changes to procedures and also giving a chance for the audience to provide feedback concerning problems they see.

Graduate School just hosted a new graduate student orientation; our turnout was around 60 students. I would like to thank the units that came to share information with the students, such as GPSC, GAU, Student Affairs, and Morris Library.

Report from Chair:

Morris: I'll be brief. I just wanted to share something with everyone. I've gotten some questions about a memo of the position of a Graduate School Dean and the duties of that come with it. With respect to the Grad School, the group of officers in accordance to Article 3 Section 5 says that there should be a Graduate School Dean. In our Operating Paper, it goes further by saying that the Chief Administrator and Executive Officer of the school is occupying the position entitled VCR and Graduate Dean. Currently, there is not a Dean of the Graduate School. What has happened is that the Chancellor has said that those duties need to be covered. The Provost is currently overviewing those duties and delegating them where she deems fit. I don't want there to be a misunderstanding that there was an appointment of a dean without a search or input. We are just trying to cover ourselves, with respect to what the statute dictates. Are there any questions on this?

Haniotakis: Do we have two positions for the VCR and Grad School Dean?

Morris: According to the statutes of the Board of Trustees for the system, it's one position.

Haniotakis: Shouldn't we change this?

Morris: We can't change it. I think the issue here is with compliance to the statutes.

Boulukos: Are you suggesting that the current arrangement is a temporary arrangement?

Morris: All this does is put the campus in compliance with the system mandate, albeit in a temporary fashion. It will stay that way until we make compliance in a different fashion.

Boulukos: Until we hire a permanent dean?

Morris: Yes, I would imagine so.

Haniotakis: I think having two positions works fine for us. Is there an option to ask the system to accommodate us?

Morris: Currently, we don't have a Dean of the Graduate School. We do have a VCR. What we are putting together is a research task force to talk about how research should be a part of the Strategic Plan for our campus. Part of this is listening to what people have to say about having 2 positions vs 1.

Gupchup: You might be able to ask the General Council regarding changing the statute to reflect what the campus decides.

Boulukos: I don't believe it actually specifies that no other position can't hold a portion of that title of VCR and Grad School Dean.

Morris: That's a point well-taken. I now want to turn it over to Philip Chu for the Research Spotlight.

Chu: Today we have two presentations; one from a PhD student and one from an Associate Professor. Let's start with Dr. Chowdhury. He received his PhD in Mechanical Engineering from U of I in 2011. In 2015, he joined SIU. He received the Early Career Excellence award from the College of Engineering.

Chowdhury: Thank you for having me. If you think about the human body, we are in the meter scale. If you break them up into organs, we are in the centimeter scale. If you break it down further, you reach the cellular, nanometer, molecule, and atoms level. Our research focuses in at the nanometer level. The cells in are body are always in contact with the external part, as well as other cell receptors. The physical environment has a profound impact on cells. We have known for the last few decades that the physical environment has an effect on gene expression. We have come to realize that mechanical signaling is just as important as chemical signaling. We investigated the effect of mechanical signals and physical properties of the micro-environment on stem cell differentiation and stem cell self-renewal. What we have found is that when cells are subjected to external stress, they differentiate; this is without any chemical input. On the other hand, if you restrict the exposure of cells, the cells will be in self-renewal mode. The bottom line is that self-renewal is a function of force. If you have low force, it will be high. If you have high force exposed to the cells, they will differentiate. When we exposed cells to a soft environment, most of them died. The ones that didn't, however, are tumorigenic. When we ejected these cells into mice, tumors were formed. It is in our interest to target these types of cells. To find out what genetic features these cells have, we studied them by using a next-generation sequencing technique. This allowed us to see what causes TrC cells to proliferate under self-renewal. We also tried to find cell bi-markers of differentially-expressed genes. All of those work is on Melanoma; we are extending to approach to Pancreatic Cancer. We are also collaborating with the SIU School of Medicine in Springfield for work on Endometrial Cancer.

Ellsworth: Why do those cells do so well in the soft environment?

Chowdhury: Within the tumor is a very heterogenous population; you have parasites, blood cells, and cancer stem cells, for instance. We found that cancer stem cells are very soft, so they thrive in soft environments. A micro-environment that is soft would enrich that population.

Jones: Is the softness an environmental component or part of the cell's membrane?

Chowdhury: It's the innate property that cell will try to mimic whatever the environment is. But, it also goes the other way; the cells will respond to different kinds of environments. It that happens, it will differentiate.

Chu: Our next presenter is Mr. Alireza Rezeghi. He is currently a PhD. He received his Bachelor's degree in 2012 and his Masters in 2014. In 2018, he started his program at SIU.

Rezeghi: Thank you for having me. Today I will be talking about electrohydrodynamics of multiphase flow or how we can control the multiphase flow using electric fields. Electrohydrodynamics is an interdisciplinary subject, coming from the combination of electromagnetics and the dynamics of multiphase flow systems. I would like to give a couple of examples for the application of electrohydrodynamics. It can assist the atomization of fuels in combustion engines and can help reduce emissions. It also relates to Biology with the process directly affecting proteins. In approach to the math behind electric fields, we try to manipulate the equations in ways that do not change the physics. In the computational, we solve the equations at discrete domains. Our numerical results are validated by real world applications that use solutions from discrete domains. For my research, we want to see what happens to a surface with respect to a ratio of density and viscosity. If you increase the voltage on the top and bottom surface of the electric fields, the shape will be changed. Different phenomena can be observed when manipulating a ratio, such as a change in intensity of the field. In real world scenarios, there are multiple interfaces, or bumps, to a field. These interfaces interact with each other. One way that we connect these interfaces is to increase the density levels. We can use the manipulation of electric fields to control properties of drugs.

Report from GPSC:

McKinley: Good morning. I have a couple of updates. As you know, Nicholas, one of our Graduate Council members, graduated in December. This meeting, we have a proxy for him, but we are holding elections in two weeks for his permanent replacement. I would also like to bring up an issue that I brought up in Executive Council a few weeks ago. Students who dropped a course after the first few weeks were able to do an evaluation of a class they didn't complete. Teaching Assistants who were upset by this went to CTE. This can be avoided by going to D2L and selecting to exclude those students from having access to those course evaluations. It's important to be aware of this option.

Report from the Vice Chair:

Shaw: We are looking for nominations for the Financial Conflict of Interest Committee. I received two volunteers from the notices I sent out. If you have an interest for serving on this committee and are involved in grant activity, please email me.

Report from Dean's Council:

Collins: On behalf of the deans, we want to say thank you to everyone who has been a part of this semester's successful start. We are hoping to get back to our normal process later this year. If you currently have students who are not showing up or participating, please reach out to them personally or report them to the system so somebody can get in contact with them. As we know, students who don't participate do not tend to do as well in class. Every college is continuing with their recruitment and retention efforts. Getting enrollment up is our top priority. As the Provost mentioned, we are having big discussions for Summer and Fall. Our goal is to have the fall semester be in a normal format.

Report from Programs Committee:

Haniotakis: We have 6 resolutions for today. All of them I think are pretty clear. The first is to rename the MS in Public Safety and Homeland Security to Public Safety. There is strong support from the faculty; I think only one person disagreed. I see no reason to oppose this RME. It is presented as written.

Morris: Do we have a motion?

Moved

Seconded

Morris: Any discussion?

Resolution to recommend approval of the RME to rename MS in Public Safety and Homeland Security passes (16-0-0)

Haniotakis: Next is an RME to abolish the MS in Rehabilitation and Administration Services. This program has been suspended since 2019. There is very strong support from faculty. I recommend approval for the RME on the condition that they students already enrolled can finish and graduate.

Morris: Do we have a motion?

Moved

Seconded

Morris: Any discussion?

Boulukos: I just want to make a general request for the report of any faculty votes on these.

McCubbin: I think it's useful to put the numbers into the RME's.

Chevalier: It was 13-0-0.

Haniotakis: I can include the voting numbers in the future.

Morris: I'll make the amendment for that information being in there. Any other discussion?

Resolution to recommend approval of the RME to abolish the MS in Rehabilitation and Administration Services passes (18-0-0)

Haniotakis: The next one is an RME for an accelerated Master in Mathematics. It has become common practice in many universities to offer this type of program. This can increase enrollment. The faculty voting numbers are 9-0-5. I think some people that abstained are questioning the rigor, given a shorter duration. I think that we should followed what other universities have done, and approve this for the sake of enrollment.

Morris: Do we have a motion?

Moved

Seconded

Morris: Any discussion?

Resolution to recommend approval of the RME for an accelerated Master in Mathematics passes (19-0-0)

Haniotakis: The next one is an RME an accelerated Masters of Science Degree in Computer Science. For the same reason as before, I'm positive about this resolution. The faculty have a very good plan for how courses will be set up. There is strong support from the faculty, with 10-0-0. The College Curriculum Committee voted 5-0-1. I propose to vote yes on this resolution.

Morris: Do we have a motion?

Moved

Seconded

Morris: Any discussion?

Resolution to recommend approval of the RME for an accelerated Masters of Science Degree in Computer Science passes (18-0-0)

Haniotakis: The next one is an RME for the elimination of the concentration of Piano Education Arts in the Masters of Music. The last student who completed this program was in 2015. There are currently no students in this concentration. There's also a staffing issue, so not all the offered courses will be able to be taught. There's strong support from the faculty, with a 12-0-2 vote.

Morris: Do we have a motion?

Moved

Seconded

Morris: Any discussion?

Resolution to recommend approval of the RME for elimination of Concentration in Piano Education Arts in the Masters of Music passes (18-0-0)

Haniotakis: The last one is an RME for Post-Baccalaureate Certificate in Infection Prevention and Control. This certificate will be online. A cost recovery model will be used. Since no additional support from the university is required, I think we should approve it.

Morris: Do we have a motion?

Moved

Seconded

Morris: Any discussion?

Jones: I have a question on the cost-recovery. What happens if there is not enough student enrollment?

Haniotakis: It is my understanding that the face-to-face courses are already pre-existing. If faculty choose to offer new online courses, I think there's another mechanism to funds the cost.

Collins: This unit has a strong history of distance-education learning and using the cost-recovery model. If enrollment in one course falls behind, we use the surplus in other courses to cover costs. This can be anticipated in the initial phases, when we are trying to get the word out regarding new courses.

Haniotakis: To be clear, the voting from the faculty was 10-1-1.

Resolution to recommend approval of the RME for Post-Baccalaureate Certificate in Infection Prevention and Control passes (18-0-0)

Report from Research Committee:

Jones: Nothing to report

Report from Program Review Committee:

Donahoo: Nothing to report

Report from Ed. Policies Committee:

Partridge: Nothing to report

Morris: If there's nothing further, this meeting is adjourned

Meeting adjourned at 10:26 AM