

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

Minutes of the Graduate Council Meeting
November 21, 2019
1:30 p.m.

Third Meeting
Room 279
STEW

PRESENT: Linda J. Mason, chair, Council Members, Dulcy M. Abraham, Christopher R. Agnew, Blake A. Allan, Thomas W. Atkinson, Taylor W. Bailey, Ryan A. Cabot, David S. Cochran, William (Bart) Collins, G. Jonathan Day, Duane D. Dunlap, Emad Elwakil, Keith Gehres, Margaret Gitau, Richard Grant, Patricia Hart, Signe E. Kastberg, Timothy B. Lescun, Samuel P. Midkiff, James L. Mohler, John A. Morgan, Melanie Morgan, Paul F. Muzikar, Zhan Pang, Paul Salama, Abraham Schwab, David G. Skalnik, Mitchell L. Springer, Rebecca H. Stankowski, Jill Suitor, Joseph D. Thomas, Xavier M. Tricoche, Candiss B. Vibbert (Provost's Representative), Eric Waltenburg, Nicole J. Widmar, Yoon Yeo

APOLOGIES FOR ABSENCE RECEIVED FROM: Christopher K. Belous, Janice S. Blum, Rita A. Burrell, Kuan-Chou Chen, William McCartney, Beth McNeil, Tina L. Payne, Manushag (Nush) Powell, John A. Springer, Chenn Zhou

ABSENCES: Athena Kennedy, Anson Soderbery, Daoguo Zhou

GUESTS: Debbie Fellure, Megan Sapp Nelson, David Starnes, Korena Vawter

I. MINUTES

The minutes of the October 17, 2019, Graduate Council meeting were approved as presented.

II. DEANS REMARKS AND REPORTS

- a. Dr. Linda Mason noted that the Curriculog electronic voting will be implemented in January. There will be a quorum of voting members with 51% voting in favor. The system is set up that voting members will be able to vote during the two weeks when proposals are submitted. Should a proposal need to be discussed by the Graduate Council, the Area Committee Chair would notify Tina Payne that a proposal should be pulled to discuss at the Graduate Council meeting. If a proposal is not requested to be pulled for discussion, the proposal will go to a vote. At that time, the system will be open for two weeks for the council members to vote, and then it will move through assuming there is a quorum. It is important for council members to vote so that we do not have to replicate proposals in the Council

meeting. Dr. Mason noted that the purpose to vote electronically is that we prefer not to use the faculty's time to be reading the list of proposals that have already been read. That is not where we will move graduate education ahead on this campus. Dr. Mason prefers to use the faculty's time at the Council meetings to have broad discussions to set agendas on where we want graduate education to go and hear from others about where graduate education is going. Dr. Mason noted that this is not a substitute for council members to say if I have voted, I have done my duty on the Graduate Council and do not need to attend the Council meetings. The reason Graduate Council members are elected to serve on the Graduate Council is that it is important to hear Council member's opinions on where we are moving graduate education forward and using the Council members time in a more valuable way when at the meeting. Dr. Mason noted that she would encourage everyone is in attendance at the Council meeting to maintain a quorum to conduct business as needed.

Dr. Mason asked the Council members to encourage their departments and colleagues to complete the research credit that we asked them to fill out for an Individual Development Plan (IDP) objective with some type of requirement syllabus for their grades. In the first two weeks of the semester when a graduate student is signed up for research and thesis credit, the faculty member is to have a discussion with their graduate student about what the key objectives and goals are that the student is going to be required to do to receive a satisfactory/unsatisfactory on the grade report at the end of the semester. We are not documenting that with the checkbox that the faculty member goes in and check that they have done this. We do not ask to see what it is and we allow them to have the flexibility of what the faculty themselves will do. The report indicated the number of faculty that completed the process was less than 50%. Dr. Mason noted that it is important to get the message out to faculty as the goal is to protect students and that they have clear expectations of what they are doing for research credits when signing up for those credits. Dr. Mason noted that we would like to see a rise in that number going up next semester. We are not regulating this; however, we are watching this and hope to build compliance as we go along to make sure that everyone is doing what they need to be doing. Part of the reasoning that is also driving this is that it is our year of mentoring, so we are looking at mentoring and mentoring programs. What is good mentoring and how do we make sure that faculty are doing the mentoring and the students are getting the mentoring they need.

Dr. Mason noted that an article will be in *Purdue Today* in January on the hotline in what is happening on mental health issues. There is a critical aspect that we are dealing with in graduate education globally that we know that the data shows that Ph.D. students are six times more likely to suffer from anxiety and depression than the general population of 25 to 32 year olds. We know this is a stressful time so when mentoring goes bad it is even more stressful for students. There has been a rise in concern of how we keep students from getting into bad situations and how do we correct it when they are in bad situations or when mentoring has gone wrong. What has led to some of the recent discussions within the graduate dean world of where we are going is the case in 2017 with the suicide of John Brady at The University of Wisconsin leading to what are we doing to protect graduate students from getting into a situation where they feel that they need to commit suicide. In that case, it was a follow up on a very abusive major professor. In that situation, no one was reporting this because of the consequences they felt that they were to report what was going on in the lab. There were video and audio recordings of the abusive language and abusive practices that were going on by that major professor in that situation. Leading up to the suicide of this individual where he left multiple notes to his family, his major professor, and the Graduate School about what had happened to him in the lab. Dr. Mason noted that there is a great

emphasis on this to ensure that when graduate students get in an abusive situation where they are uncomfortable in reporting such a situation during the time they are in that abusive situation, we will have an active press release that will be sent to students, faculty, and staff with a hotline button in January so abuse can be reported through the normal Purdue hotline system. Dr. Mason noted that those reports come in about an abusive situation concerning graduate students will be routed to the Graduate School to investigate these anonymous tips that come in. Dr. James Mohler has written instructional information on how to use this so we want to get the word out to individuals who are in an abusive situation and does not know what to do and how to report it that this report would get to the Graduate School so that we independently can go in and start looking at the situation so that we do not get to a point where a student feels that they must commit suicide. Dr. Mason noted that the Graduate School will launch this in January as part of our mentoring series in trying to get students to understand ways in which they can report or faculty can report another faculty member anonymously. Dr. Mason noted to be aware of mental health issues with your students and ways in which you can help.

- b. Dr. Melanie Morgan gave an update on the Professional Development workshops for Fall Blitz with 60 unique workshops with 1,850 registrations. There have been 138 workshops offered this Fall with 3,360 registrations for graduate students. Dr. Morgan noted that new programs will be launched this Spring. One of the new programs is an internship program for graduate students who would like to get experience with skills that they would not get here and will not be paid. We are going to be able to support them in those endeavors and will be able to take students to Washington D. C. and Chicago to labs and some of the policymakers for a meet and greet with former alumni who can help them shape some things in their careers. Dr. Morgan noted that in addition to that with our year of mentoring, we are going to have our first mentoring workshop on January 30th and 31st. W. Brad Johnson who has written several books about mentoring has been invited. Dr. Johnson has a Ph.D. in Psychology and is currently a professor at the Naval Academy. One of his books is called, *The Elements of Mentoring*. His newest book is called, *Athena Rising How and Why Men Should Mentor Women*.
- c. Dr. Linda Mason noted that the Task Force committee for graduate student pay issues and graduate student housing has met two times and will be meeting a third time. They will be making recommendations on where do we go on housing on this campus. The next recommendation will be on the graduate student pay and the minimum stipends and how that would be affected in the long term on campus.

Dr. Mason noted that the Task Force for the Online Doctorate Degree is looking at an online doctorate degree versus a Ph.D. The Ph.D. has traditionally been thought of as a research-based degree that requires intense research background and knowledge. Individuals who want additional knowledge resource specialty to practice in an area such as our Professional Engineering, Education and The Doctor of Nursing Practice. Looking at what would be the guidelines that we would set up here at Purdue to have general doctoral degrees available to people who want to gain a doctorate degree associated with a certain University.

Dr. Mason noted that Dr. Melanie Morgan is working with the Advisory Committee on Diversity. With the retirement of Kathy Dixon as the Diversity Director, it is a time to look at where we go. With the change in leadership, we will look at what to do different to service and coordinate what goes on at this campus related to diversity. The task force committee has met in coordinating with our new vice provost of diversity on what the departments and

Graduate School is doing in that capacity. The committee will be reporting on this in the

Spring semester with action items that the council will need to look at to determine what the council wants to do and where graduate education is going.

III. AREA COMMITTEE REPORTS (Area Committee Chairs)

Graduate Council Document 19G, Graduate Council Documents Recommended for Approval:

Area Committee A, Behavioral Sciences (Signe Kastberg; chair, skastber@purdue.edu):

Graduate Council Document 19-6c, **EDCI 52003, Theories and Trends in Curriculum and Instruction** (PWL)

Graduate Council Document 19-6d, **EDCI 52004, Teachers As Leaders** (PWL)

Dr. Signe Kastberg presented two courses for consideration. The courses were approved by the council, upon a motion by Dr. Kastberg.

Area Committee B, Engineering, Sciences, and Technology (Samuel Midkiff; chair, smidkiff@purdue.edu):

Graduate Council Document 19-54b, **AT 60700, Aviation Applications of Bayesian Inference** (PWL)

Graduate Council Document 19-33b, **CE 59801, Breakthrough Thinking For Complex Challenges Engineering** (PWL)

Graduate Council Document 19-42c, **CEM 53300, Infrastructure Analytics** (PWL)

Graduate Council Document 19-38a, **CSCI 53200, Cloud Computing Systems** (IUPUI)

Graduate Council Document 19-39d, **MSE 58600, Experimental Characterization Of Advanced Composite Materials** (PWL)

Dr. Sam Midkiff presented five courses for consideration. The courses were approved by the council, upon a motion by Dr. Midkiff.

Area Committee C: Chemistry, Engineering, and Physical Sciences, John Morgan; chair, jamorgan@purdue.edu):

Graduate Council Document 19-46a, **PHYS 52301, Nanosystems Principles** (IUPUI)

Graduate Council Document 19-46b, **PHYS 52601, Integrated Nanosystems Processes And Devices** (IUPUI)

Dr. John Morgan presented two courses for consideration. The courses were approved by the council, upon a motion by Dr. Morgan.

Area Committee E: Life Sciences, (Ryan A. Cabot, chair; rcabot@purdue.edu):

Graduate Council Document 19-35a, CPB 63500, Advanced Veterinary Diagnostic Microbiology (PWL)

Graduate Council Document 19-35b, CPB 63600, Veterinary Microbiology Seminar (PWL)

Graduate Council Document 19-49b, MUSC 50500, Methods of Music Therapy I (PFW)

Graduate Council Document 19-49c, MUSC 50800, Methods of Music Therapy II (PFW)

Graduate Council Document 19-49d, MUSC 51000, Music Therapy In Medicine & Healthcare (PFW)

Graduate Council Document 19-49e, MUSC 51500, Clinical Practice In Music Therapy (PFW)

Graduate Council Document 19-49f, MUSC 51800, Topics In Music Therapy Ethics (PFW)

Graduate Council Document 19-49g, MUSC 52000, Music Psychotherapy (PFW)

Graduate Council Document 19-49m, MUSC 52500, Theories And Approaches In Music Therapy (PFW)

Graduate Council Document 19-49h, MUSC 53000, Music Therapy Research I (PFW)

Graduate Council Document 19-49i, MUSC 53500, Music Therapy Research II (PFW)

Graduate Council Document 19-49j, MUSC 54000, Intensive Music Therapy Practicum (PFW)

Graduate Council Document 19-49n, MUSC 54100, Music Therapy and Child Development (PFW)

Graduate Council Document 19-49k, MUSC 54300, Advanced Practice I: Infants, Children, & Adolescents (PFW)

Graduate Council Document 19-49o, MUSC 54400, Special Topics In Music Medicine (PFW)

Graduate Council Document 19-49L, MUSC 54500, Advanced Practice II: Integrative Medicine (PFW)

Graduate Council Document 19-49p, MUSC 54800, Music Therapy Clinical Internship (PFW)

Dr. Ryan Cabot presented seventeen courses for consideration. The courses were approved by the council, upon a motion by Dr. Cabot.

IV. PURDUE GRADUATE STUDENT GOVERNMENT -- PRESIDENT'S REPORT

Mr. Taylor Bailey, President of the Purdue Graduate Student Government (PGSG) reported the following:

- PGSG had a five-person delegation attend the National Association of Graduate Student Conference at the University of Kentucky. Purdue is doing a good job in supporting graduate students compared to other Universities.
- PGSG will host the regional conference for the National Association of Graduate and Professional Students (NAGPS) next Spring semester.
- In parallel to the Compensation Task Force, the PGSG will pursue a project for Cost of Living Survey for the Spring semester.
- Two topics discussed at the Senate meeting on November 20, 2019:

- 1) The senator from Entomology is interested for a faculty statement of support for graduate students in relation to the trouble that Grad Staff had with respect to the

change with Human Resources. The transition with factors that lead to people being overpaid/underpaid or not paid. Those problems continuing into the Fall semester where students who were overpaid have been told to pay the overpayment in three weeks or they would be turned over to collections. Every pay period has experienced other issues that is not a consistent problem each pay cycle with Success Factors. The Student Affairs Committee suggested that it would be appropriate for the Graduate Council to make a statement of support that would encourage Human Resources to continue improving Success Factors. Mr. Bailey noted that he met with the Vice President of Human Resources, Bill Bell, who offered for Amy Boyle to be a regular contact to the Senate meeting. Moving forward we have a better structure in place to avoiding things like this happening to at least be involved in the conversation before things like this happen.

- 2) A second resolution was passed with the difficult situation in Iran for international graduate students who may be applying due to lack of internet access currently. The Student Affairs would encourage departments to consider extending admissions deadlines such as the Graduate School sent.

- The Graduate Students Bill of Rights and Responsibilities came back up at the University Senate. A revised document 1802 was voted on non-unanimously, but did pass with an endorsement of the document. There was specifically the addition of language at the suggestion of the original complainant for the original vote encouraging Purdue Graduate Student Government (PGSG) to revise a policy document.
- A resolution came up with regards to the recent incident at CVS that effected a Purdue student. The language included by the authors identified this incidence of xenophobia and racism and called the university administration to do a better job at making statements that support what the mission of the university is. It was voted to table that given some disagreement about some of the language that was included. Mr. Bailey noted that PGSG will have a formal statement and would invite everyone whether or whether not there be formal statements from departments that you provide space for any students who may experience or feel that they are the recipients xenophobia or discrimination while we try to find proactive ways to improve the environment that students find themselves in.

V. NEW BUSINESS

Dr. Theresa Mayer, Executive Vice President for Research and Partnerships noted that she began her role August 1st. The Office of the Executive Vice President for Research and Partnerships (EVPRP) works closely with faculty to enhance Purdue's success in attracting federal funding through support of the development of grant applications, management of contracts, and compliance with regulations. Purdue has 139 university-approved centers and institutes; each developed to fill a particular need. Several interdisciplinary research centers are located in Purdue's Discovery Park.

Dr. Mayer noted that we cannot separate the research enterprise and mission from our graduate education as we engage sponsors if we consider our sponsored research portfolio. One thing notable is that we are seeing is a growing connection between the fact that as our federal

partners and industry partners are funding research there in large part funding that research because of the critical need to develop a talent pipeline. It underscores the importance of looking at the two as one. There are growing opportunities as we look at our funding opportunities to write more proposals that are aimed at the talent pipeline and for universities such as Purdue, that have such a large stem focus. We are seeing this talent gap that is becoming more and more critical for the nation. It is driving this focus on the graduate talent pipeline, but also increasingly how can we engage undergraduates in our research mission, which provides a wonderful learning opportunity for our graduate students when they are engaged hand in hand.

Dr. Mayer noted that she would like to elevate and engage in listening to the feedback that you have, where you see great opportunities where you may as faculty who are engaging in graduate education, see some items that you would like to elevate for my attention. Dr. Mayer noted a couple of highlights of our portfolio. Most of you are aware of our sponsored research portfolio for the FYE 18 statistics for the National Science Foundation Higher Education Research and Development survey were just announced. We see once again record overall total research expenditure for system-wide over the last three years we saw an increase from 637 million to 644 million, and an FYE 18 which is a year behind because the survey we report in January takes about a year to come out is 671 million. With that, we look at our standing and the overall across the nation, our ranking dropped slightly because we are in a very competitive landscape. Our research enterprise is robust, and it continues to grow rapidly thanks to all of the faculty and graduate students who are conducting the research. With Purdue's comprehensive land grant institutions, it has a balanced portfolio of research. If you look at Purdue's breakdown it is roughly 70% federally funded and 30% which is quite substantial from industry and nonprofits and the industry portion of our portfolio has been one of the areas of growth. As we engage graduate students that presents great opportunities that also presents some interesting challenges that we face as faculty. As we navigate industry research that tends to have shorter durations of funding, we also are in a position where we have to accept restrictions that may include pre-publication reviews etc. Hearing feedback from faculty would be very helpful.

Dr. Mayer noted that the balance of the portfolio in the federal sector is equally divided between many of our major agencies, so the National Science Foundation and the National Institute of Health are approximately equal. Beyond that, the Department of Defense is the next largest with our agriculture sectors - the USDA, as well as the Department of Energy in the 10 to 12% range. Unlike our peer institutions that are oftentimes dominated by their medical school, and maybe sensitive to changes of small fluctuations and funding from the National Institute of Health. If you look at us enterprise-wide, because of the breadth and diversity of our portfolio we tend to be buffered from any of those fluctuations. Based on the feedback that Dr. Mayer received after meeting with many of our federal partners and sponsors, as well as our major strategic alliance partners on the industry side. We see significant growth opportunities as we look at the non-bipartisan support in the federal government for a number of critical technology areas where this is not limited to engineering and science. These critical technology areas have huge implications and policy outputs in Social Sciences. As we look across the spectrum, we are seeing very large upside potential in the Department of Defense sector. Dr. Mayer visited with the College of Liberal Arts faculty senate and one of the questions received during that meeting were the opportunities in the Department of Defense for our social scientists and liberal arts faculty. Dr. Mayer was encouraged to see the open-mindedness as we consider not just our standard portfolio of federal funding partners, but thinking about some of the non-traditional opportunities that we have as a comprehensive land grant institution with agriculture as well as liberal arts, business, science, and technology that

we can tap into. We are an American Association of Universities (AAU) member. We are one of 64, which is a highly prestigious group of universities. The graduate rankings and the

graduate profile of our institution is critically important to maintain our presence within the AAU. President Daniels has asked many of us to look at these areas as he recently attended the AAU President's Council meeting because Purdue is in the lower quartile of the universities. We will be engaging in an effort to look at those statistics and metrics to understand where we have substantial opportunities to ensure that we are maintaining our status within the AAU because other institutions are being considered. The AAU voted on three new institutions this round, so these institutions will join. It is very important because other institutions have been dropped. Dr. Mayer noted that she does not want to signal any danger, but these are things that we definitely want to keep an eye on. Another area that rolls up into our overall reputational standing is not only our national rankings, but our global rankings. Dr. Mayer noted that this has not been part of an active dialogue on most university campuses but, as we continue to recruit the best and the brightest talent from across the world our global ranking and reputation is of critical importance with the large investments in the universities in foreign countries across the globe. What we are seeing nationally is that U.S. Institutions fare very well, they tend to be declining in the ranking. This year as we looked at the global rankings, those that are quantitative measures and the global rankings are based on our graduate profile, unlike many of our national rankings. Dr. Mayer noted that a relevant conversation for this group because of our graduate population factors in heavily. One of the recent rankings that appeared was the Times Higher Education (THE) and the U.S. News & World Report. These quantitative measurements of scholarship and graduate productivity of Purdue in the Times Higher Education world rankings did decline from 88 to 64 and the U.S. News and World Report we are 114. We are hovering around the top 100 and would like to remain in the top 100 globally. It is one of those level settings that we do not want to drop below so that factors in because looking at the reputation for AAU and the global rankings do tend to be aligned.

Dr. Mayer noted that we could talk about this for hours, but again, to get you thinking if departments are not talking about these and these are areas where our offices are heavily engaged. A couple of other national items that has not been in discussion within the Graduate Council in how we can improve communications. The topic of foreign influence nationally is a very significant topic of conversation and it is only growing by the day. Dr. Mayer asked how many of the Council members were familiar with the talent programs, and the very significant concerns about the talent programs. With a very limited number of hands that were raised, that signals to us that this is probably an area where we need to enhance our communication. Also, to help educate our students, so that as students may be approached largely by China to potentially engage in talent programs. Dr. Mayer noted that she attended the Association of Public and Land-grant Universities (APLU) annual meeting and saw one of the best presentations from the National Institutes of Health. They showed us a redacted talent program contract, and it was shocking. This is talking about the theft of not simply intellectual property; this is the theft of know how the theft of federally funded research by other countries. As we have developed a more collaborative relationship between academia, and our federal agencies, and the Federal Bureau of Investigation (FBI) they have started to share more details. It is very important to have a conversation about this. Dr. Mayer noted that it is our responsibility to educate our faculty and graduate students for their own protection if they are approached that they are fully aware of the challenges and the concerns. Dr. Mayer noted that those were a few things that she wanted to touch on and get a sense so that we can work together to understand how we can communicate more effectively. Dr. Mayer would like to receive feedback that you would like to share as she is coming up to speed and trying to listen and learn and understand how we can prioritize.

Dr. Mayer noted that when she arrived President Daniels asked her based on feedback that he and others were receiving about the somewhat fractured approach that we have in engaging companies. We have many different groups - groups within research, within the development office, and within the foundation and we continue to list the different groups that are all reaching out to industry in trying to engage industry. We need to look at our overall approach for industry engagement and try to develop a structure that would provide greater coordination so that we can ensure that as we are approaching companies and as they approach us. Often what we hear is that they do not know how to get started at the University. As we try to build more strategic relationships from recruitment to research, to meeting the philanthropic goals that we do that in a more coordinated way. Dr. Mayer noted that a couple of days ago we announced two of our largest offices are going to be integrating into one office launching a new office for industry partnerships. This combines the team that was in Research and Partnerships with the teams and the University Development Office in Corporate and Foundation Relations into a single integrated team. We are working on understanding how we integrate more effectively with some of the other groups. They will share a common platform and common metrics, and those include everything from engaging companies to understanding their talent pipeline needs and where they have critical needs on how do we enhance our research. Again, all the way to downstream if we are delivering high value, what are the philanthropic goals? There was a discussion about inclusion and diversity. This is an area that is of critical importance to our industry partners, and an area where we feel that we can enhance engagement and have an opportunity to work with companies to seek additional resources to help to support some of our goals, particularly at the graduate level. As companies try to seek to diversify their workforce, they are looking at the universities to help them meet their goals. Dr. Mayer noted that she met with John Gates, Vice Provost for Diversity and Inclusion. She is looking forward to working with him, as well as the graduate school, and all of the departments to develop programs that we can engage the companies and understand how they might be able to help support some of our goals. Dr. Mayer noted that what we hear when we engage companies is the talent is their number one driver, and they look at Purdue as a leading institution that is driving excellence at scale. This is a tremendous opportunity for us to engage and they bring some of the most exciting problems at the leading edge. By working with companies that can expose us to what some of those cutting edge opportunities are that we can engage our graduate students directly in that research. As we are negotiating the relationships with them to understand how do we work through the real restrictions that might be imposed on the publications, pre-publication review and how does that influence our graduate students in working hand in hand with our faculty to ensure that faculty who are working on the programs that we try to reach a compromise. We understand the constraints they are under, and that they work with us to try to understand the constraints that we are under as well.

Dr. Mayer noted that some questions related to graduate fellowships and the research enterprise side referred to as the Purdue Research Foundation (PRF). The Graduate School also receives funding through a generous endowment – The Ross and Lynn Endowment that spins off revenue on an annual basis. They are divided between the Office of the Executive Vice President for Research and Partnership (EVPRP) and the Graduate School, and transferred to the colleges as each college currently handles them differently.

Dr. Mayer noted that doing national benchmarking and looking at the endowment return and ensuring that we are not dipping into the endowment itself. The people who are managing the finances are reducing the revenue that they are going to be distributing from 4.5% to 4%. That is a generous amount relative to our peers and so this change is painful on our side, but it is meeting the national standard. It is ensuring that we continue to build our endowment rather

than dip into the principle of the endowment. This is something that Dr. Mayer had an initial conversation with Linda Mason and realizes that the graduate side is a bit more complicated than EVPRP's side.

Dr. Linda Mason noted that the Graduate School distributes that money so that it can be distributed to the departments while less money is going out at a time when we are trying to grow graduate enrollment.

Dr. Mayer noted that the funding from the endowment that has been at 4.5% so that is a specific example within EVPRP in terms of the direct support that is being provided for graduate education. Dr. Mayer noted that we have opportunities, so they are talking about bringing together the Associate Dean's for Research and the Associate Dean for Graduate Education because of comments about priorities that are critically important. There are engaged conversations to look at the resources that we have available and trying to work towards a budget so that there are transparency and clarity that we can provide in the resources that are provided to share with the Associate Dean for Research. Dr. Mayer noted that they need to work hand in hand with the Associate Dean for graduate studies to look at our investment, the portfolio of investments so that we can get direct feedback from the colleges in terms of our investment strategy. Where is it the most important if we have this amount of funding, then perhaps if we had the clarity to this active discussion from the priorities in terms of the things that we look at is how do we subsidize our core laboratories, how do we make investments in our equipment and core infrastructure to support computation. Dr. Mayer noted that we look at the different areas where we make investments, how do we want to prioritize them. If we have greater clarity across those different priorities, perhaps be able to go back to the treasurer and others to understand how we might be able to enhance resources to those areas. Dr. Mayer noted that in the specific case of the endowment this is not a decision to try to grow the endowment. This is a decision to try to make sure that we do not cut into the principle of the endowment, which would then subsequently began even if we are spinning off 4.5%, it would eventually erode the effectiveness. The other pieces, how can we be more successful at fundraising, so that we can further grow that endowment or in the case of industry, how do we develop the support so that we can try to bring in more resources for graduate support and graduate fellowships. Looking at the opportunities for enhancing the dollars that are coming in to support graduate research, and then looking at those priorities. It is important to get feedback directly from the colleges as we look at everything is important, but then how do we prioritize one over the other.

Dr. Mason noted that one of the things that we are doing with the Budget and Fiscal planning group is other ways that we can divide how we pay students. One model that we asked them to run the numbers on is if we pay full tuition for a Grad student right now through their graduate education. Dr. Mason noted that some of our peer institution's tuition goes down rather than paying full once Grad students pass the qualifying exam because they are not taking any classes at that time. They are fully engaged in the research mission of the institution to drop them down to a \$1,000 fee or a \$1,500 fee that you pay, rather than \$10,000 to \$15,000 tuition on that. What would that do if we pay true tuition because no one gets away with writing off tuition so those bills go from \$10,000 down to \$1000 and there is a \$9,000 loss to the institution even though we are paying ourselves and taking it from ourselves? What would that model look like so that we could spread the money that we do have for those of us that are paying it? The spread that Dr. Mason's model could pay the tuition out of the Graduate Tuition Scholarship (GTS) account and could pay more students tuition in the last two years that we were not spending \$10,000 and we are only spending \$1,000. Those models that we could look at to save them unless we get more people to endow with an endowment, and we have to deal with the money that we have and how can we spread the money so that it goes further along.

Dr. Mayer noted that the feedback from the Associate Dean's for Research that there is pressure if we look at the distributions or the PRF's that the salaries are not competitive with peers, so it is also looking at numbers. We do give the discretion for colleges to align and make choices about the level of stipends being provided, but there is pressure to ensure that as we are allocating resources that resources are sufficient to pay the stipend. President Daniels asked Dr. Mayer to look at the AAU stats and talk to Provost Jay Akridge given that they are so heavily based on graduate education. Dr. Mayer anticipates that the conversation will turn to graduate education and scholarship. At previous institution, it did seem as though the conversation was dominated at the undergraduate level. This was something that maybe is not atypical, but we will work hard to elevate the importance of graduate education.

VI. OLD BUSINESS

Dr. Linda Mason noted that the update to the application with a workaround in Slate will go live to start July 1st. Students will be able to apply to three programs, three campuses, three Chemistry departments within the University so we can have three reviews of those applications at one time.

VII. CLOSING REMARKS AND ADJOURNMENT

The council meeting was adjourned by Dr. Mohler at 2:31 p.m.

James L. Mohler, Deputy Chair

Tina L. Payne, Secretary

APPENDIX A

PENDING DOCUMENTS

(November 2019)

BOLDED ITEMS ARE IN REVIEW WITH AN AREA COMMITTEE

Area Committee A, Behavioral Sciences (Signe Kastberg; chair, skastber@purdue.edu):
Graduate Council Document 19-6c, EDCI 52003, Theories and Trends in Curriculum and Instruction (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

Graduate Council Document 19-6d, EDCI 52004, Teachers As Leaders (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

Area Committee B, Engineering, Sciences, and Technology (Samuel P. Midkiff, chair; smidkiff@purdue.edu):

Graduate Council Document 19-54b, AT 60700, Aviation Applications of Bayesian Inference (PWL) Sem. 1 and 2. SS. Lecture 3 times per week for 50 minutes. Credit 3. Prerequisites: AT 50700 OR IT 50700 OR STAT 30100 OR STAT 50100 OR STAT 51100. Permission of instructor required. Typically offered Fall Spring Summer.

Graduate Council Document 19-33b, CE 59801, Breakthrough Thinking For Complex Challenges Engineering (PWL) Sem. 1. Lecture 3 times per week for 150 minutes. Credit 3.

Graduate Council Document 19-42c, CEM 53300, Infrastructure Analytics (PWL) Sem. 2. Lecture 2 times per week for 75 minutes. Credit 3.

Graduate Council Document 19-38a, CSCI 53200, Cloud Computing Systems (IUPUI) Sem. 2. Lecture 2 times per week for 75 minutes. Credit 3.

Graduate Council Document 19-15f, ECE 52500, Introduction To Computer Graphics (PNW) Sem. 1 and 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: MA26500 or equivalent, and good C/C++ programming skills.

Graduate Council Document 19-15a, ECE 61020 Operation of Modern Power Systems (PWL) Sem. 2. Lecture 3 times per week for 50 minutes. Credit 3.

Graduate Council Document 18-22a, IE 68500, Competitive Strategy (PWL) Sem. 2. Lecture 3 times per week for 50 minutes. Credit 3.

Graduate Council Document 19-39c, MSE 67000, Atomistic View of Materials: Theory, Modeling And Simulations (PWL) Sem. 1 and 2. SS. Lecture 1 time per week for 150 minutes. Credit 3. Prerequisites: BS degree in materials, mechanical, chemical, electrical or aerospace engineering or in physics or chemistry.

Area Committee C: Chemistry, Engineering, and Physical Sciences, John Morgan; chair, jamorgan@purdue.edu):

Graduate Council Document 19-46a, PHYS 52301, Nanosystems Principles (IUPUI) Sem. 1. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: Graduate students - enrolled in engineering or science graduate degree program or instructor consent: Undergraduate students - senior standing in engineering or science degree program or instructor consent.

Graduate Council Document 19-46b, PHYS 52601, Integrated Nanosystems Processes and Devices (IUPUI) Sem. 2. Lecture 1 time per week for 75 minutes for 13 weeks. Laboratory 1 time per week for 75 minutes for 13 weeks. Credit 3. Prerequisites: PHYS 52301.

Area Committee E: Life Sciences, (Ryan A. Cabot, chair; rcabot@purdue.edu):

Graduate Council Document 19-35a, CPB 63500, Advanced Veterinary Diagnostic Microbiology (PWL) Sem. 1 and 2. SS. Individual Study. Variable Credit 0.00 to 8.00. Prerequisite: DVM degree/ or Equivalent. Permission of instructor required.

Graduate Council Document 19-35b, CPB 63600, Veterinary Microbiology Seminar (PWL) Sem. 1 and 2. SS. Individual Study. Variable Credit 0.00 to 8.00.

Graduate Council Document 19-49a, MUSC 50000, Intensive Introduction To Music Therapy Practice (PFW) Sem. SS. Lab 5 times per week for 400 minutes for 1 week and Distance. Credit 4.

Graduate Council Document 19-49b, MUSC 50500, Methods of Music Therapy I (PFW) Sem. 1. Lecture 3 times per week for 400 minutes for 1 week and Distance. Credit 2.

Graduate Council Document 19-49c, MUSC 50800, **Methods of Music Therapy II (PFW) Sem. 2.** Lecture 3 times per week for 400 minutes for 1 week and Distance. Credit 2.

Graduate Council Document 19-49d, MUSC 51000, **Music Therapy In Medicine & Healthcare (PFW) Sem. 2.** Lecture 3 times per week for 400 minutes for 1 week and Distance. Credit 2.

Graduate Council Document 19-49e, MUSC 51500, **Clinical Practice In Music Therapy (PFW) Sem. 1 and 2. SS.** Clinical 1 time per week for 200 minutes for 1 week for 15 weeks. Credit 2.

Graduate Council Document 19-49f, MUSC 51800, **Topics In Music Therapy Ethics (PFW) Sem. 1. Distance.** Credit 2.

Graduate Council Document 19-49g, MUSC 52000, **Music Psychotherapy (PFW) Sem. SS.** Distance. Credit 2.

Graduate Council Document 19-49m, MUSC 52500, **Theories And Approaches In Music Therapy (PFW) Sem. 1 and 2.** Lecture 3 times per week for 400 minutes for 1 week and Distance. Credit 3.

Graduate Council Document 19-49h, MUSC 53000, **Music Therapy Research I (PFW) Sem. 1.** Lecture 3 times per week for 400 minutes for 1 week and Distance. Credit 3.

Graduate Council Document 19-49i, MUSC 53500, **Music Therapy Research II (PFW) Sem. 1.** Lecture 3 times per week for 400 minutes for 1 week and Distance. Credit 2.

Graduate Council Document 19-49j, MUSC 54000, **Intensive Music Therapy Practicum (PFW) Sem. SS.** Lab 2 times per week for 250 minutes for 6 weeks. Credit 2.

Graduate Council Document 19-49n, MUSC 54100, **Music Therapy and Child Development (PFW) Sem. 1.** Lecture 2 times per week for 400 minutes for 1 week. Distance. Credit 2.

Graduate Council Document 19-49k, MUSC 54300, **Advanced Practice I: Infants, Children, & Adolescents (PFW) Sem. 1.** Lab 1 time per week for 200 minutes for 15 weeks. Credit 2.

Graduate Council Document 19-49o, MUSC 54400, **Special Topics In Music Medicine (PFW) Sem. 1.** Lecture 3 times per week for 400 minutes for 1 week. Distance. Credit 2.

Graduate Council Document 19-49L, MUSC 54500, **Advanced Practice II: Integrative Medicine (PFW) Sem. 1.** Lab 1 time per week for 200 minutes for 15 weeks. Credit 2.

Graduate Council Document 19-49p, MUSC 54800, **Music Therapy Clinical Internship (PFW) Sem. 1 and 2. SS.** Practice Study Observation 5 times per week for 400 minutes for 26 weeks. Credit 1.

NEW DOCUMENTS RECEIVED

(After the November 21, 2019 Graduate Council Meeting)

Area Committee A, Behavioral Sciences (Signe Kastberg; chair, skastber@purdue.edu):

Graduate Council Document 19-12c, **ASEC 54100, Program Development In School-Based Agricultural Education (PWL) Sem. SS.** Lecture 2 times per week for 75 minutes. Distance. Credit 3.

This graduate course in agricultural education concentrates on program planning and delivery of secondary programs in agriculture. Special emphasis is placed on utilizing school and community resources to develop programmatic offerings, recruit and retain students, organize FFA activities, direct supervised agricultural experience programs, and manage the agricultural education program. Various topics to be discussed will be determined based upon current trends in the field of agricultural education as well as the needs and interests of the students enrolled. Foundational procedures involved in conducting a secondary agricultural education program will be addressed. Permission of instructor required.

Graduate Council Document 19-12d, ASEC 54600, Communication And Issues Engagement For Agricultural Professionals (PWL) Sem. 1 and 2. Distance for 8 weeks. Credit 3.

In this eight-week online course, students will be exposed to science communication and issues engagement principles. The course is designed primarily for those with little or no formal communication training. Topics include evidence-based best practices for communicating science; news media and social media influences on controversial science; how to monitor controversial issues; and major theoretical perspectives and strategies for engaging the public on food and agricultural science.

Graduate Council Document 19-12e, ASEC 54800, Communicating Science To The Public (PWL) Sem. SS. Distance for 8 weeks. Credit 1.

This course will help graduate students in science disciplines learn to communicate science to non-expert audiences. Through readings, assignments and guided discussions, students will learn relevant communication theories and recommended strategies for engaging with the public on science and technology topics.

Graduate Council Document 19-59b, EDPS 55200, Basic Concepts Of Applied Behavior Analysis (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

This course is the first in a sequence of courses for the Applied Behavior Analysis Certificate Program. This course, in combination with the other courses, will provide fundamental knowledge and experiences for understanding Applied Behavior Analysis principles, concepts, and techniques, including observational analysis, data-based instruction, and social validity to increase students' social and task related behavior. Students learn procedures to increase or decrease target behavior, to facilitate behavior maintenance and generalization, and to evaluate effectiveness of instruction.

Graduate Council Document 20-10a, PSY 61601, Neurobiology of Brain Disorders (PWL) Sem. 1 and 2. Lecture 2 times per week for 75 minutes. Laboratory 1 time per week for 50 minutes. Credit 4.

This course covers cellular and molecular mechanisms associated with alterations in brain function and human behavior linked to the most common neurological and psychiatric disorders. Students will learn about genetic, pharmacological, and physiological mechanisms related to the etiology, expression, and treatment of brain disorders. Permission of department required.

Graduate Council Document 20-11a, SLHS 50401, The Auditory Periphery (PWL) Sem. 1. Lecture 2 times per week for 75 minutes. Credit 3.

Acoustics and Fourier analysis; outer-ear resonance and interaural differences; middle-ear impedance and structure; inner-ear mechanical responses; hair-cell transduction, electrophysiology, motility; cochlear potentials; cochlear amplifier; suppression; otoacoustic emissions; efferent feedback to the cochlea; damage to the ear; treatments for damaged ears. Permission of department required.

[Area Committee B, Engineering, Sciences, and Technology \(Dulcy M. Abraham, interim chair; dulcy@purdue.edu\):](#)

Graduate Council Document 20-7a, ENGT 55000, Manufacturing System Design For Sustainability (PWL) Sem. 1 and 2. SS. Individual Study. Distance. Credit 3.
Cross-listed Course: SE 55000 (PFW) Meets with; not equivalent.

This course prepares manufacturing and information technology leaders to design and analyze manufacturing processes to achieve manufacturing system objectives that meet internal and external customers quality, cost and delivery requirements within a safe environment. The course project covers major aspects of manufacturing system design and Industry 4.0 in the context of meeting

customer needs. Technology leaders and entrepreneurs learn how to work with others to develop the design of manufacturing systems that are sustainable (business, ecological, social, technological) for the long-term. When to use lean and six-sigma techniques in the context of the manufacturing enterprise system design to meet customer needs will be assessed from a system design perspective, through analytical and computer simulation techniques, and through the use of physical modeling tools.

Area Committee C: Chemistry, Engineering, and Physical Sciences, John Morgan; chair, jamorgan@purdue.edu):

Graduate Council Document 19-13b, **BCHM 52100, Comparative Genomics** (PWL) Sem. 2. Lecture 2 times per week for 50 minutes. Laboratory 2 times per week for 50 minutes. Credit 3. Prerequisites: BCHM 49800 or equivalent undergraduate research.

The course provides an understanding of the forces that act on genome content and organization, and the ability to interpret genetic variation between genomes. Students will acquire skills to utilize public genome databases, visualize genomic regions/features of interest using a genome browser, and perform phylogenetic analysis. The knowledge gained is central within the fields of genetics, bioinformatics, microbiology, and evolutionary biology and have important applications in numerous related fields including medicine, biotechnology, agriculture, and ecology.

Area Committee D, Humanities and Social Sciences (Manushag (Nush) Powell, chair; mnpowell@purdue.edu):

Graduate Council Document 19-32c, **COM 64600, Strategic Corporate Branding** (PWL) Sem. 1 and 2. SS. Distance. Credit 3.

This graduate course will survey the theories and processes of business brand design, development, and implementation. The course will examine best practices, trends, and creative strategies used in contemporary business branding. An emphasis will be placed on experiential learning, case study analysis, and the application of relevant theory to provide an in-depth understanding of the development, planning, execution, and evaluation of business brands.

Graduate Council Document 19-2k, **ENGL 55702, Modern and Contemporary American Poetry** (PFW) Sem. 1 and 2. SS. Lecture 3 times per week for 50 minutes. Credit 3.

This course focuses on an intensive study of modern and contemporary American poetry, considers several of its most important movements (Imagism, Black Mountain School, Deep Imagism, Women-Centered Poetry, Regionalism, Beat Poetry, etc.), and focuses on several key poetic figures. Students will read a lot of twentieth-century American poetry, learn how to analyze and discuss it, and consider it in light of form, technique, theme, and cultural considerations. We will read to understand and analyze but also to learn how to deepen enjoyment and appreciation. In the process, the course will introduce you to a variety of forms and techniques of contemporary American poetry, developing your critical skills in understanding and responding to poetic texts.

Graduate Council Document 19-L, **ENGL 64401, Designing A Poetry Course – Using Poetry for the People** (PFW) Sem. 1 and 2. SS. Lecture 2 times per week for 75 minutes. Credit 3.

In this class we will study how to design a course for teaching poetry by using *June Jordan's Poetry for the People: A Revolutionary Blueprint*. You will create a viable syllabus, create guidelines for workshops, modeling poetic forms, develop cultural literacies by using writers from different races, classes, sexual orientations, genders, etc., and do this as a cooperative so that the finished tasks reveal and showcase a community for teaching—rescuing the canon, and giving power to our voices, and the people.

Graduate Council Document 19-2j, **ENGL 66900, Introduction To Visual Theory and Visual Culture** (PWL) Sem. 1 and 2. SS. Lecture 3 times per week for 50 minutes. Credit 3.

Visual studies is the multidisciplinary study of images, viewers, and vision. Students will be provided with an overview of the theories, practices, and histories of the visual from a variety of disciplinary perspectives and historical periods. The seminar will be organized around a series of basic questions (such as what is an image? how do images produce meaning? What do images do? what is vision?) whose responses have come to constitute the field as well as its transdisciplinarity. Readings will be drawn from seminal works in visual theory, cultural semiotics, cultural theory, intermediality, art history, media studies as well as the psychology, philosophy, and science of vision.

Graduate Council Document 20-9a, **HIST 56800, Big History: From Big Bang To The Future** (PNW) Sem. 1. Lecture 1 time per week for 180 minutes. Credit 3.

Big History weaves evidence and insights from many disciplines across 13.8 billion years into a single, cohesive, science-based origin story. The concept arose from a desire to go beyond specialized and self-contained fields of study to grasp history as a whole. Big History explores how we are connected to everything around us and where we may be heading. It provides a foundation for thinking about the future and the changes that are reshaping our world.

Graduate Council Document 20-9b, **HIST 58200, Art Of History** (PNW) Sem. 2. Lecture 2 times per week for 75 minutes. Credit 3.

A balanced presentation of the art of studying, understanding, researching, and writing history. Taught by the section, it will present a balanced view of problems in American and European historiography; causality and methodology will be emphasized. Careful attention will be paid to research methods, the mechanics of citation, and the use of the university library, and writing style.

Graduate Council Document 19-30b, **POL 53200, Nuclear Strategy and Proliferation** (PWL) Sem. 1 and 2. Lecture 3 times per week for 50 minutes. Credit 3.

“Nuclear Strategy and Proliferation” is designed to teach students about 1) the conceptual elements and operational requirements of nuclear deterrence and 2) the historical dynamics of nuclear proliferation and nonproliferation. The goal of the class is to enable students to 1) evaluate the deterrent effects of different nuclear weapons and various configurations of nuclear arsenals and 2) analyze the technological, political and legal incentives and obstacles for acquiring nuclear weapons.

Area Committee E: Life Sciences, (Ryan A. Cabot, chair; rcabot@purdue.edu):

Graduate Council Document 19-19b, **FNR 58700, Advanced Spatial Ecology and GIS** (PWL) Sem. 1. Lecture 2 times per week for 50 minutes. Laboratory 1 time per week for 180 minutes. Credit 3.

Introduction to the principles of landscape ecology and biogeography with a laboratory devoted to the analysis of spatial data using geographic information systems and other database tools. Landscape ecology focuses on the important relationships of landscape structure (pattern, heterogeneity) and ecological processes (movement of animals, hydrologic dynamics) and how this information is used for natural resource management. Biogeography examines ecological patterns and processes at larger scales (generally at subcontinental to global) for the purposes of managing

plants and animals of global importance. In the last 15 years, tremendous efforts have been made to create spatial databases that help support research and management of natural resources at various scales. The lab will focus on the use and application of these databases that are common in natural resource management settings.

Graduate Council Document 19-67a, HSCI 52000, Risk Assessment in Environmental Health (PWL) Sem. 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: HSCI 56000; HSCI 54700 or HK 44500; HSCI 54500.

Risk assessment as used in environmental health is the scientific process used to determine the extent of human exposure to an environmental hazard, and the type and quantify of health effects that are likely to result from these exposures. Information derived from risk assessments are used as the basis for setting regulatory guidelines, determinations of whether a given situation is “safe” or “hazardous” throughout government and industry. This course will cover the process and steps needed to performing a risk assessment, how risk communication can be used to discuss results of a risk assessment, and the use of risk management as a tool to translate results of a risk assessment into policy.

Graduate Council Document 19-67b, HSCI 55300, Advanced Occupational Safety Management and Culture (PWL) Sem. 2. Lecture 2 times per week for 75 minutes. Credit 3.

Prerequisites: TLI 11200 or OLS 25200 or OLS 27400 or graduate standing.

The Occupational Health and Safety Manager assumes a critical role within an organization – protecting the employees from suffering work-related injuries, illnesses, and fatalities. This job requires a number of approaches to achieve this aim, including employee training, hazard identification and abatement, safety policy development, and incident investigation. The health and safety manager often forms a bridge between upper management and front line employees. As such, the successful health and safety manager needs to skill sets which transfer across organizational levels. This course will explore strategies managing an effective health and safety program within an organization. Management strategies will be viewed from multiple perspectives. In relation to the front line employee, topics will be explored to help engage employees in safe behaviors and dealing with situations in which failures occur, resulting in accidents. The upper management perspective will focus on the establishment of a safety management system and effective techniques for measuring and reporting safety performance. A final perspective will consider both the front line employee and upper management. This perspective will explore strategies to establish a positive safety culture within an organization to bring the front line employees and upper management together in their vision of a safe and health workplace.

Graduate Council Document 20-8a, LA 50100, Research Methods For Design Applications (PWL) Sem. 1. Lecture 1 time per week for 50 minutes. Credit 1.

The growing need for understanding the role of individuals, communities, and society in shaping the natural environment has led to a greater emphasis on landscape architectural research and the need to provide training in the research methods to support these efforts. It is an exciting time to enter this arena as landscape architects are collaborating with natural and social scientist to achieve better conservation outcomes, promote sustainable behaviors, and increase awareness and understanding of the complex environmental challenges facing our society. Non-Landscape Architecture students may gain enrollment with permission of instructor.

Graduate Council Document 19-41c, NUR 67400, Quality Initiatives, Leadership and Advanced Practice Nursing (PWL) Sem. 1 and 2. SS. 2 credit course with Lecture and experiential (LEC 110 min per meeting/ 3 meetings per semester and experiential 140 minutes per week for 12 weeks per semester). Co-Requisites: NUR 51100.

This course develops concepts of the guiding principles of quality, system and leadership initiatives in the Nurse Practitioner Role. The students explore principles and techniques of health

coaching, interprofessional team work, delegation and prioritization that can be used in various healthcare settings. Potential quality initiatives will be identified and an improvement plan will be developed using various quality initiatives modalities in the healthcare system to improve quality care, safety and patient outcomes. Permission of department required.

Area Committee F, Management Sciences (Nicole J. Widmar, chair; nwidmar@purdue.edu)

Graduate Council Document 19-66a, AGEC 60900, Applied Welfare Analysis (PWL) Sem. 2. Lecture 2 times per week for 75 minutes. Credit 3. Prerequisites: A graduate course in microeconomic theory; a graduate course in regression analysis.

This course develops the theory and methods used to assess the benefits and costs of economic policies and projects. Topics include benefit-cost analysis, economic impact analysis, nonmarket valuation, and analysis of risk and uncertainty.