

WORCESTER POLYTECHNIC INSTITUTE
May 27, 2021

To: The WPI Faculty
From: Tanja Dominko
Secretary of the Faculty

The ninth Faculty meeting of the 2020-2021 academic year will be held on **Thursday, May 27th, 2021 at 11 am via ZOOM.**

1. Call to Order
 - Approval of the Agenda
 - Approval of the Consent Agenda and the Minutes from 5-6-21
2. Committee Business
 - CAO – Motion to approve the May 2021 undergraduate student graduation list
 - CGSR – Motion to approve the May 2021 graduate student graduation list
 - COG - Motion to update Part Two of the Faculty Handbook to include a sample appointment letter for Professors of Practice
3. Reports
 - Academic Affairs - Faculty activity model
 - CFO - Update on the operating budget projections for the academic year 20/21
 - COG - Credits delivered
4. New Business
5. President's report
6. Provost's report
7. Closing remarks
8. Adjournment

TABLE OF CONTENTS Faculty Meeting Materials, May 27, 2021

	Page
1. Faculty Meeting Minutes: May 6, 2021	3
2. Consent Agenda motions	14
3. Committee Business	56

WORCESTER POLYTECHNIC INSTITUTE
Faculty Meeting Minutes
May 6, 2021

Summary:

1. Call to Order
 - Approval of Agenda
 - Approval of the Consent Agenda and Minutes from April 8, 2021
2. Committee Business: CAP, COG, COG/FRC, COG
3. Other Reports
4. President's Closing Remarks
5. Provost's Closing Remarks
6. Closing Announcements
7. Adjournment

Detail:

1. Call to Order

The eighth Faculty meeting of the 2020-2021 academic year was called to order at 3:15pm via ZOOM by **Prof. Dominko** (BBT). **Secretary of the Faculty Dominko** welcomed everyone and reminded them that the meeting was being recorded. Prof. Dominko highlighted a change to the consent agenda. There were also two additional items placed on the agenda: a motion from CAP was added to Committee Business; and recognition of the recipients of Trustee's Awards was included in Other Reports. Prof. Dominko specifically thanked the incoming Chair of the Board of Trustees Andy Aberdale, who is joining us today.

The amended agenda was approved.

The consent agenda, including the minutes from the last faculty meeting were approved.

3. Committee Business

CAP

Prof. Duddle (CEE), on behalf of the Committee on Academic Policy (CAP), moved that the wording in the current undergraduate catalog regarding overload language be modified. There are three locations where changes are recommended.

The first section is within the Global Project Program section of the catalog on page 19. The existing language says, "Students are highly discouraged from overloading during the preparatory term and may only overload during the project term with the permission of their project advisors." The proposal is to replace with "Students must also follow all policies and procedures for off campus projects which are overseen by the global experience office" and a link to that page.

Second, current language "A student may not include any portion of qualifying work as part of an overload without the approval of both the academic and project advisors written

approval, that will be requested before registration can be completed.” Will be replaced by the proposed language “Students are strongly encouraged to consult with their academic advisor before registering for an overload.”

The third portion is in the same section on page 17. The existing language states, “Students may not register for an overload more than 7/3 units per semester without the electronic approval of the academic advisor.” The proposed language states, “Students are strongly encouraged to consult with their project advisors before registering for an overload.”

The first portion of this motion is needed because there were changes to policies that the global office had with regard to overloading this year due to pandemic changes. The Global Experience Office did allow overload in some cases based on individual circumstances. Next year is uncertain as to which project centers may have travel associated with them, therefore the policies may be variable for different locations depending on whether students are on site at a project center or if they are on campus. Rather than updating the policy every year as we progress through our pandemic situation, it is recommended that we simply refer to the page that has the most updated policies. Students are required to sign paperwork regarding policies when they decide that they are going to participate in a global site, so that is the most appropriate reference to use. The issue is that the current policy in the catalog is not followed and advisors are not approving overload with projects. The academic advisor also may not be the best one to determine if an overload with a project is something that a student can take on or not. There are also inconsistencies depending on the timing of the overload. If a student registers for a project first, there would not be any overload shown. CAP is recommending that in all cases the policy encourages the students strongly to consult with the appropriate person before overloading. Currently the Registrar enforces overloads, but the first change shifts this responsibility to the GEO. The second and third changes allow students to register for overload without approval for regular classes and projects that are being completed on campus.

This motion passed with 72 votes in favor.

COG

Prof. Boudreau (HUA) said she is really excited to be here representing the Committee on Governance (COG). The three motions today are the follow-up to the three motions that you all voted on in January regarding tenure-track for teaching faculty. These relate to job security for non-tenure track faculty and expanding the responsibility for Faculty Governance to all secure faculty.

The first motion is to establish security for a large group of non-tenure track faculty members. This is the majority of them. Their department heads considered them to be necessary and valuable for the longer term. We call them secured teaching faculty, which is defined by the status and conditions of their appointments. This is not defined by their titles.

The second part is to enhance faculty inclusion. This means bringing people who are not our traditional tenured or tenure-track faculty into Faculty Governance in three ways. This is done by expanding the formal definition of the faculty, extending responsibility for governance of

the faculty to this larger group and then to broaden the formal protections of academic freedom to all members of the faculty. This is to make explicit and remove any ambiguity about whether they are entitled to academic freedom and the protections, the committees, and the processes that the tenured and tenure-track faculty have long enjoyed.

Prof. Richman (ME) stated that the first motion is to revise Part Two, Section Seven of the Faculty Handbook.

This contains the categories of faculty members at WPI. This has been broken out into four separate sections. One of these is to specifically identify the categories of faculty members of WPI and give a sense of what their roles and responsibilities are. The second one will now be called Section 8 and will give details about appointments and reappointment processes for performance review of the non-tenure track faculty. The remaining changes have to do with procedures. The criteria of the non-tenure track faculty has been extracted and let sit on its own. The second motion really follows from the first one because of the protections that non-tenure track. The second motion is simple and straightforward. This extends the Faculty Review Committee. The third motion is the combination of all our work. This expands the definition of the faculty and expand the responsibilities for governance and the faculty. Prof. Richman also explained that throughout the presentation there will be some changes in blue that we have made since the April 8th meeting. He thanked everyone for taking the opportunity to provide feedback. One thing that has been added is the requirement for the Secretary of the Faculty to be a tenured member of the faculty.

Prof. Boudreau moved on behalf of COG that Section Seven of the Faculty Handbook is revised to include Assistant, Associate, and Full professors of teaching to revise the categories of non-tenure track faculty, to document revised terms of end of appointments, re-appointments, and performance reviews for both secured and short-term non-tenure track teaching faculty members, and to include a sample appointment letter for all teaching professors an instructors holding secured non-tenure track teaching appointments.

This is a new component of the motion since it was last seen. It is described in the materials distributed for this faculty meeting. Prof. Richman stated that the challenges on these things involve lots of details. The challenge here is to give you enough details to give you a sense of what is going on if you haven't gone through the document yourself, but also not get bogged down. Section Seven is a little more complicated than it used to be because it includes the dual mission, assistant, and associate professors. These are the traditional tenure track faculty members, but now we have the teaching-mission assistant, associate, and full professors of teaching. These and the people who will be put on the teaching tenure that we approved in January. These are the two groups here. Those that are hired with the expectation that they are going to have continuing academic responsibilities here and they have provisions in their appointments for the expectation of a long-term institutional commitment from WPI and those are the titles of assistant, associate, and full teaching professors, instructors and senior instructors. There are also the professors of practice, who we want to extend as much security as possible. We also have what we now call short-term non-tenure track faculty members. These people are hired for the short-term to fill temporary needs that might have arisen due to

sabbaticals and unexpected retirements. They also have the same titles of assistant, associate, and full teaching professors, instructors and senior instructors. The difference between these two groups is not their titles, but their contract status. One mail detail about the appointments and security that we have written into these appointments has to do with the contract lengths. This is the post fundamental part of all of this. For the teaching professors and instructors, the term layoffs would be 1, 3, and 5 or 5 plus. This means that someone hired new would be hired on a one-year probationary appointment with an expectation that they would receive another 3-year appointment to follow and another 3-year to follow that, followed by a 5 plus year. Another important part of this has to do with workload responsibilities. The way it is written now, the appointments would include a general statement of workload responsibilities, based on feedback that was received. They want to balance the department heads need to make reasonable changes and teaching assignments on the fly if necessary and the TRT protections against sudden unreasonable increases in their teaching loads. This has been balanced by inserting the requirement that some general statement, which gives the flexibilities, but also gives a sense of the volume of the workload that couldn't be increases without an agreement. The annual performance reviews are currently in place, but they take on even more significance now since re-appointments will be primarily based on these annual performance reviews. They are going to focus on teaching, but also any other responsibilities. This is a recognition that these faculty do service, scholarship, and professional development, which should be included in the performance reviews. The results of these reviews should be documented to be transparent and shared with the faculty member. This is written into the new Faculty Handbook for the purpose of general categorization as well as to help with some issues of notification of non-reappointment. There is a very rough scale that faculty members would be rated on included, which ranges from exceeding expectations to falling below expectations. Prof. Richman stated that the expectation is that the vast majority of people exceed or meet expectations. He explained that they have built in as much security as they can. Security for these faculty members comes in two ways within appointments. No faculty member may be disciplined or terminated without just cause. Currently all our non-tenure track faculty are employees at will. They can be dismissed. This would be a drastic change that no faculty member can be disciplined or terminated without just causes such as misconduct. Misconduct is defined in our Faculty Conduct Policies. Prof. Richman also added that security between appointments has to with the criteria based on performance reviews, which is why the annual performance reviews are so important. There are other unforeseen circumstances that could also affect the decision not to reappoint or to reappoint such as academic downsizing. This is to be distinguished from temporary reductions in enrollments because these kinds of things are always going to happen. We don't want people to lose their jobs for those reasons. Even if they are not going to be reappointed, this notice needs to be at least one year before the end of the appointment unless the faculty member had a one-year probationary appointment or fell below expectations in the last year of their appointment. In these cases, a one-year notice would not be possible. Prof. Boudreau added that the discretion resides with the department head. They could give one year notice or could say that they are on the line and it doesn't look like they will be reappointed next year.

Prof. Richman stated that Professors of Practice are different. They come to WPI with 5-year appointments, which are initially reviewed by COAP. Experience has taught us that those

continual 3-year renewals, given the rigor of the appointments through COAP, has been an onerous burden for the Professors of Practice. The change that has been made in the motion is that all those subsequent 3-year appointments would be extended to 5-year appointments, which will be subject to review by COAP. The other two items are just extensions of the same kinds of protections and concerns to the Professors of Practice as are in place for the teaching professors. The general statement of workload and responsibilities would be included initially with the understanding that changes should be agreed upon and the security within those 5-year appointments.

With regard to the implementation, there is a proposed implementation now for the current assistant, associate, and full teaching professors and instructors. Department heads need to identify those who are considered long-term and those who are meeting or exceeding expectations. There may be a small group that are placed on the tenure track, but those not placed on the tenure track will be affected by this implementation. The rule that is being suggested is that the appointment length, effective July 1st, would be determined by the faculty members time and service at WPI as through this 1, 3, 3, 5 sequence of term assignments had been in place when they were hired. The Professors of Practice are in a different situation since some are in their first 5-year appointment. These 5-year appointments would remain unchanged as there is no reason to change them. For those holding 3-year appointments, there is a chance these could be unchanged, and when they expire, they can be given a 5-year appointment, or it could be extended by two years automatically to 5-year appointments. This is at the discretion of the department head.

Prof. Elmes (FBS) stated that he is excited about this proposal and strongly supports it. He hopes others will support this motion as well.

Prof. Billiar (BME) stated that he is in support of this. He has concerns that as a department head, a lot of constraints are being placed on him. He is concerned about the subjective letter that is not written for any other faculty but understands that these measures are to protect the more vulnerable faculty, so he supports it. He would like the ability to list very high load expectations so that he can lower them later. He doesn't want to get caught with someone saying he is increasing their load despite the changes that may happen naturally. Prof. Billiar also added that he thinks the review is more like a staff evaluation. He means no disrespect to the staff, but they are very different from the faculty and do different kinds of tasks. For all other faculty he uses the advanced prompts to talk about their aspirations and what he can do within his constraints to help. These evaluations are not something that are done for the tenured faculty. Prof. Billiar asked what happens if a faculty just decides they don't care anymore and fails at teaching. They can't be terminated since the grounds for termination are misconduct. Prof. Boudreau stated that she appreciates the concerns and added that they tried to involve everybody in this. Provost Soboyejo was present with COG to communicate with the department heads. In regard to the teaching load, when you hire someone, you can tell them how many courses they will be teaching a year in general. The trouble comes when this course load is increased with no reason. A number of courses can be agreed upon initially, but when it comes to directing a program, this can replace one or two of the courses. In terms of the performance review, she understands that the performance review is a conversation and is based on all the nuances that you know and have observed as a department head, but when

you get to the point when you decide on whether to reappoint somebody, you are making a crude choice between them being good enough or not. Sometimes we don't do this, but rather just push it off until there is time to think if someone is really needed for the long-term. This is what we want to avoid. This is not preventing you from having this advanced structured conversation, but just states that in the end, you need to write it down just as you do for unbudgeted faculty when you put it if you want them reappointed. If a professor is neglecting teaching responsibilities, if they don't show up for class, don't grade assignments, stop giving assignments, this is negligence of duty and responsibility, which can be identified and adjudicated in the Faculty conduct policy. This person can be terminated as long as this process is followed.

Prof. DiBiasio (CHE) stated that as a former department head, he can see that this in transition may be a little more work, but this work is worth it because what we are doing is not just making history for WPI but making a mark elsewhere. We talked a lot about equity and inclusivity, and this is a huge chance to make those people who are delivering our educational system both included in the process, protected, and equitable as far as we can, given the constraints. He is in favor of this motion.

This motion passed with 71 votes in favor and 3 votes opposed.

COG/FRC

Prof. Boudreau moved on behalf of COG and the Faculty Review Committee (FRC) that the charge of the FRC in Part One, Bylaw One, Section Nine, and in Part One, Appendix B of the Faculty Handbook be expanded to include cases related to termination and non-reappointment of secured non-tenure track faculty members, as described in the materials distributed for this faculty meeting.

This is a simple motion. It is unchanged from last time. In the last motion, the protections of the non-tenure track were extended to the secured faculty. One of these protections is the FRC, which in its current scope hears faculty grievances, Provost's decision not to renew a probationary tenure track appointment, negative decisions on tenure, and negative decisions on promotions of tenure track and continuing non-tenure track faculty members. The current scope includes non-tenure track faculty, but only in regard to promotions. The proposed motion grants the FRC the authority to review and reconsider decisions to terminate or not renew appointments of secured non-tenure track faculty members on a 3, 5, or more year contract. This includes the teaching professors as well as the Professors of Practice. The current grounds for review are limited to those violations of academic freedom in proper procedure and discrimination. All this motion does is it includes decisions to terminate or not renew appointments of the secured non-tenure track faculty members who are on 3- or 5-year contracts.

Prof. Spanagel (HUA) stated that he agrees that making this proposed change to FRC's list of itemized responsibilities makes sense in terms of our current faculty governance committee structure. This provides non-tenure track faculty with a process to have their grievances adjudicated, which is an important provision. He thinks this is important as it will work

against any erosion of academic freedom. Prof. Richman added that this motion was brought jointly by COG and FRC.

This motion passed with 75 votes in favor and 2 votes opposed.

COG

Prof. Boudreau, on behalf of COG, moved that the formal definition of the WPI faculty be expanded to add tenured and tenure track assistant, associate, and full professors of teaching as well as all full-time non-tenure track teaching professors, associate teaching professors, assistant teaching professors, senior instructors, instructors, professors of practice, assistant, associate, and full research professors to those responsible for the governance of the faculty. Another addition is that the Secretary of the Faculty must be a tenured member of the faculty.

This motion is described in the materials distributed for this faculty meeting. Those changes will go into effect beginning July 1st, 2021 on the condition of approval by the Board of Trustees of the three motions approved by the faculty on January 28th, 2021 that establish and institutionalize the teaching path to tenure for professors of teaching. This motion brings together all of the legs of the stool, including the motions that were approved in January and today. This motion expands the formal definition of the faculty by the title. This includes the tenured and tenure track faculty who are associate and full professors. It also includes the new category of tenure track faculty, assistant, associate, and full professors of teaching. It includes the non-tenure track faculty, assistant, associate and full teaching professors, as well as the instructors, professors of practice, and senior instructors. All of the faculty titles and categories listed here, all the full-time faculty, are according to this motion included in the formal definition of the faculty. It extends responsibility for governance of the faculty, and the extension will include the new teaching tenure track faculty and all the TRT faculty members. The short-term faculty are not included since we can't guarantee that employment and can't grant them the protections. This motion also broadens the explicit right to academic freedom and protections that we all enjoy. This makes explicit what has been implicit and removes any ambiguity. At the last faculty meeting there was a concern that whatever contracts are put in place are not going to be the functional equivalent of tenure being that they aren't perfectly secure. COG and the TRT Council worked to improve this. We recognize that it is not perfect.

The new provision in the motion recognizes the importance of the Secretary of the Faculty position as the senior elected faculty member who often stands out there alone and represents faculty. She/he is the only one in this position and acknowledges the risky nature of those responsibilities, sometimes borne by contract, having to take controversial positions on behalf of the faculty. It also recognizes the ultimate protection that comes only from holding a tenured appointment. The guiding principle here for all these motions and for the connecting of full participation with security of employment and academic freedom is that the governance of the faculty is strong and effective when those responsible are secure and when those most responsible are most secure. In the past we had to choose between full inclusion and strong governance. In the past three years we have worked with the Provost since he is the academic leader of the faculty, representing department heads and the administration. We have also worked with the TRT faculty as well. This has been a big challenge because we have had to

square this contradiction to let this overarching principle be our guiding light without sacrificing inclusion. These are the fundamentals of security, the freedom to participate in all university activities without reprisal, and that includes these procedural preset protections. Security within appointments is one protection so that no disciplinary action or termination can be taken without just cause and without following the processes of misconduct. Security between appointments is more limited of course, but it is based primarily on performance, which is determined by these processes that help protect the regular, transparent, and documented reviews.

Prof. Shue (CS) spoke in favor of this motion. He stated that it is well done and pointed out that we are going to be expanding the number of people who can participate in votes in faculty meetings, which also expands the number that we need for quorum. In today's meeting, getting 78 votes in some of these motions, will not be sufficient if the quorum expands. He does not know that the faculty would have met quorum today in order to pass something that we consider extremely important to ourselves as an institution. He encouraged all faculty that have voting rights to advocate to get their colleagues to come to these meetings so we can make sure that the WPI faculty doesn't lose its ability to govern simply because we don't have enough people in the room. Prof. Richman stated that he has confidence that the TRT's will come to these meetings. It will be a cultural shift as they are not used to coming to faculty meetings, but he is not concerned. Prof. Richman stated that he is optimistic that in the end, our faculty meetings will look even better since the size of the faculty will be larger and there will be more input to create the diversity of views. This will make us stronger in the end, but it is something to keep an eye on. Prof. Boudreau stated she is confident that we are not going to have a problem, but it is good to keep in mind. One thing that motivated all the changes is that the voting faculty thought we weren't doing it right by these folks because they have been so involved. Prof. Dominko and Prof. Hanlan explained that in order to conduct business we need to have quorum participation in the meeting. If we have 70 faculty right now, we can have 40 votes in favor and the motion would pass with a simple majority.

Prof. Billiar spoke in favor of the motion with the caveats that he raised previously. He was not sure about the motivation for the Secretary of Faculty being a tenured member. He thought no one would want that job if they were not a tenured member since they would not feel secure in it. He is unsure why it needs to be written in there. He is strongly in support of this motion because of the concept of spreading the wealth. There is so much work to go on here and we should probably make our committees a little bigger or maybe split some committees and make more committees. He asked if there was thought about having a certain number of dual mission faculty members on certain committees. He does not think that the current system of getting people on faculty governance is equitable, so he wanted to voice his concerns. When people are voting there is no statement on peoples values, but just names. Prof. Boudreau stated that the carious faculty governance committees knew this was coming and we have asked them to start thinking about how they want to change their membership. This is within their purview to think it through and come up with a motion for the faculty. We took, with the exception of the Secretary of the Faculty, a light hand and deliberately said we were not going to mandate any of this, but rather let the committees figure it out. This may take some time, but those committees are aware of it. The motivation for the Secretary of the Faculty is about this principle of governing best when you are most secure. It is our belief that

it does not behoove us to have somebody who doesn't have the most kind of protection that we can get as an institution. The other changes that will be coming next year as different committees review are to communicate values or goals or approaches between the candidates. Prof. Richman stated that they had a long conversation and decided to take a light touch now, but it is an exciting moment for us. In the coming years these are the questions that this change is going to bring. It is going to motivate us to ask these questions about the fairness of the election process. This brings opportunities to improve the faculty governance system. These concerns are on the radar and we are looking forward to tackling them in the next year.

Prof. Heilman (CBC) encouraged everyone to vote in support of this. It has been a long time coming and he speaks on behalf of all the TRT faculty that they are very excited to be here and look forward to participating.

Prof. Spanagel motioned to extend the meeting for 15 minutes. The motion was approved.

This motion passed with 83 votes in favor and 1 against.

Prof. Dominko thanked Prof. Boudreau and Prof. Richman for their work. She also thanked the TRT Council for getting organized and consolidating opinions and voices. Prof. Dominko thanked all the advocates who supported this effort along the way.

Other Reports

Prof. Dominko congratulated and recognized the following colleagues as recipients of Trustees' awards this academic year:

Prof. Boucher-Yip from Humanities and Arts is a recipient of the Board of Trustees Award for Outstanding Teaching.

The Trustees Award for Outstanding Research and Creative Scholarship was awarded to **Prof. Fischer** from Robotics Engineering.

The Board of Trustees Award for Outstanding Academic Advising was awarded to **Prof. Coburn** from Biomedical Engineering.

The Nicoletti Trustees Award for Service to the Community was awarded to **Emily Perlow** from Student Activities.

Recipients of the Romeo L. Moruzzi Young Faculty Award for Innovation in Undergraduate Education and **Prof. Teixeira** from Physics and **Prof. Rohde** from Humanities and Arts.

The Chairman's Exemplary Faculty Prize was awarded to **Prof. Billiar**, the Department Head in Biomedical Engineering.

Prof. Dominko congratulated everyone and asked **Mr. Aberdale** to share his thoughts.

Mr. Aberdale stated that it is so nice to see everyone and to see many new faces. He has been on the Board of Trustees for about seven years, and is currently one of the Co-Vice Chairs of the Board and also the Chairman Elect. Mr. Aberdale looks forward to working more closely with everyone. Last Thursday he had the experience of participating in the virtual celebration of the faculty. He thanked and celebrated the faculty for their achievements as well as the Trustee Award recipients, on behalf of the Trustees. He thanked all the Trustee Award recipients for their accomplishments and dedication.

4. President's Closing Remarks

President Leshin stated that this was an inspiring meeting and congratulated the award winners. She also thanked Mr. Aberdale for being here and representing the trustees. It is important that the trustees understand the work of the faculty. President Leshin congratulated everyone on the TRT faculty motions and thanked Prof. Richman, Prof. Boudreau, and Prof. Dominko. She also thanked Provost Soboyejo and both the General Counsel's Office and Provost's Office.

President Leshin asked for everyone's patience over the first few years while we work through the new processes for implementation of the latest faculty motions. We all share the same goals and want to make this work well. She reflected on a past conversation about how we could fully enfranchise the faculty and the need for protections and academic freedom. This would make sure that everyone would be free to do their work and speak their mind.

President Leshin also announced that we have made it to very low-mid levels in terms of COVID on campus right now. We are going to make it to the end of the year without having to send everyone home or shut down. We were able to do this because we all work together. Following the recommendation of the American Association of College Health Professionals, we are requiring the vaccination for students. There are religious and medical exemption opportunities. For other vaccine requirements we have less than 2% of students that have requested these kinds of accommodations. This means that we will have a very high level of vaccination on the campus. We are not requiring this for faculty and staff, but we are strongly encouraging it. We are requiring that these groups tell us their status because we need the campus to be at 90% or better so we can repopulate the classrooms and get back to teaching the way we know works best.

President Leshin mentioned that at the last Joint Coordinating Council Meeting these discussed the Administrative Policy Group (APG). This process is important because of all of this that we do here every month. We need to have a process in place to pass policies. We are trying to use the APG for administrative policy, but the structure is new, so there are some aspects we are trying to figure out. The process itself is meant to be quite flexible. Administrative policies, policies that apply to literally everyone in the campus community, have a strong impact on the core academic work of faculty. We need to take more time before they are brought to the APG the first time to make sure we are really engaging with the right groups of faculty. This process is meant to do this and we will continue to work on it in the coming year. President Leshin thanked Prof. Shue and Prof. Fehribach who have been the faculty representatives on APG this year. They have both been extraordinary contributors to the conversations. This really brought a strong faculty voice in those discussions representing

FAP and CITP there. This hopefully gives everyone more confidence that we are working our way through this and we are going to continue to have a structured process in place so we can encourage everyone and help make the progress more transparent.

Not only did we come through COVID, but we managed to radically change in a very positive way, the landscape of our faculty at WPI. We also put together a s new strategic plan. President Leshin encouraged everyone to enjoy the last week of the term.

5.Provost’s Closing Remarks

Provost Soboyejo mentioned how when he first came to WPI, he remembered attending his first faculty meeting, assuming that everyone had a vote. When he found out that this was not the case, he was deeply troubled. He expressed how proud he is of his colleagues and all the faculty. He also is proud of the administration and the Board of Trustees. Provost Soboyejo added that he is delighted to be a member of this team because of what we have achieved together. There were lots of potentially insurmountable things, but step by step we took them on and got them done. Based on the votes, the community really trusts those working on this. We have used that trust to improve the lives of the TRT faculty members. It has been a delight to interact with all of them. When he listened, he said he could better understand the sensitivities that were crucial and everyone realized that we have this desire by the TRT faculty to invent the methods of implementation in ways that were really special. Provost Soboyejo thanked everyone for understanding and for respecting each other. He specifically thanked Prof. Boudreau for coordinating the committee to try to bring many stakeholders together and being very positive in working on the implementation strategies. He is really proud of this historic moment because we recognized the value of teachers that dedicate themselves and we provided them with the security that means they enjoy all the benefits of our wonderful academic community. Provost Soboyejo thanked everyone who worked behind the scenes to work out all the numbers and nuances in a way that builds trust with the Board.

He expressed his deepest appreciation for all the faculty for everything they do for WPI. At the beginning of the year we were nervous, but what we found is that we work together as a team and we have been able to get to this point. Provost Soboyejo looks forward to the next few days and weeks when he hopes to see everyone on campus.

6.Closing Announcements

Prof. Dominko thanked everyone for everything they have done to help the process of what we accomplished. **Prof. Servatius** (MA) added that we should get rid of Workday.

7. Adjournment

Meeting was adjourned at 4:58pm by **Prof. Dominko**.

Respectfully submitted,
Tanja Dominko
Secretary of the Faculty

Addenda on file with these minutes:

COG motions

CONSENT AGENDA

CAP

1. Revise Language on Timing of Overloads in Undergraduate Catalog 15

CAO

1. Cross-listing of IMGD 2048 with Art 16
2. Changes to course titles and descriptions for courses in the Chinese Track 18
3. GSWS Minor 24
4. Addition of course options for MA and MAC Transition courses 33

CGSR

1. Update the catalog description of the master's program in Applied Statistics 35
2. Update the catalog description of the master's program in Applied Mathematics 36
3. Change the title, description and credits associated with the course MA 557 38
4. Approve a new graduate course 'Computational Statistics' (MA551) 40
5. Place CS 547 in the AI and Databases bins for the M.S. and Ph.D. in Comp. Science 43
6. Add CH 520 Cell Signaling 44
7. Require CE 596 Graduate Seminar in the Ph.D. program 45
8. Add new graduate course – CE596 Graduate Seminar 46
9. Approve BME cross-listing of ME and RBE graduate courses focused on biomedical materials, medical device design, and medical robotics 47
10. Approve a graduate course ME 5503 Medical Device Innovation and Development 50
11. Approve a graduate course BCB 555 Journal Club in Quantitative Cell Biology 52
12. Add the MS in AE with Thesis Option 54

Date: May 27, 2021
To: WPI Faculty
From: Committee on Academic Policy (Prof. Dudle, Chair)
Re: Motion to Revise Language on Timing of Overloads in Undergraduate Catalog

Motion: The Committee on Academic Policy recommends and I move that the wording in the current (2020-21) undergraduate catalog be modified as follows:

Modifications to Undergraduate Catalog Language (2020-2021 catalog):

Office of the Registrar; Registration; Overload of Courses (page 216):

- Delete Existing Language: “Registration for courses which will result in an overload may take place, on a space-available basis, as of the first day of the term in which that course is offered.”
- Replace with Proposed Language: “Registration for courses which will result in an overload may take place, on a space-available basis, after all current undergraduate students have had the opportunity to register for classes. This date will be posted on the Registrar’s website.”

Rationale:

The current policy and catalog wording forces students to wait until the first day of classes to overload. This creates unnecessary stress for students wishing to overload, as they are unable to finalize their schedules before start of a term and thus unable to prepare for classes (e.g., purchasing textbooks or other course materials in advance). In addition, for classes that meet early in the day, a student may not be able to register for an overload before the class begins (e.g., for an 8 am class or laboratory). Lastly, if students cannot register until the first day of classes, they are unable to access Canvas sites for courses until the first day of classes, and thus are unable to access potentially important class information ahead of time. This policy change is intended to (1) allow students to plan schedules and prepare for classes in advance and (2) alleviate the stress associated with last-minute schedule changes for both students and faculty.

The registration system in Workday allows departments/programs to reserve seats in their courses for various groups of students, such as incoming first year students. Thus, if rising seniors, juniors and sophomores are allowed to register for overload in a fall semester before first-year students register for their fall classes, this will not negatively impact the ability of first-year students to obtain seats in classes. In addition, the overload fee for registering for more than 21 credits in a semester will continue to serve as a natural limiter, preventing students from “hoarding” classes they do not intend to take.

Date: May 27, 2021

To: WPI Faculty

From: Committee on Academic Operations (Prof. Mathisen, Chair)

Re: Motion to cross-list IMGD 2048: Technical Art and Character Rigging, approved by the Department of Humanities and Arts on 04/16/2021

Motion: The Committee on Academic Operation recommends, and I move that IMGD 2048 Technical Art and Character Rigging be cross-listed with Art such that the course number is AR/IMGD 2048

Existing title, description, and course offering schedule:

IMGD 2048 Technical Art and Character Rigging (Cat. II)

This course will focus on making digital art functional in a video game environment. Students will learn the skills necessary to create and optimize their art assets through several creative and technical solutions that are all geared towards making high quality game art. This course will allow students to form a greater understanding of the bridge between pure art creation and interactive art implementation into a game engine. The course explores the many problems and technical restrictions one is faced with when trying to implement anything from animated characters to textures and focuses on how one can creatively apply technology to achieve high quality results. Topics covered include: creating complex character rigs, optimizing character meshes for rigging, shader creation, optimizing UV space and baking texture files and lighting. Recommended background: Basic knowledge of 3D modeling, texturing and animation (IMGD 2101 and IMGD 2201 or equivalent). Students may not receive credit for both IMGD 204X and IMGD 2048.

Proposed title, description, and course offering schedule:

AR/IMGD 2048 Technical Art and Character Rigging (Cat. II)

This course will focus on making digital art functional in a video game environment. Students will learn the skills necessary to create and optimize their art assets through several creative and technical solutions that are all geared towards making high quality game art. This course will allow students to form a greater understanding of the bridge between pure art creation and interactive art implementation into a game engine. The course explores the many problems and technical restrictions one is faced with when trying to implement anything from animated characters to textures and focuses on how one can creatively apply technology to achieve high quality results. Topics covered include: creating complex character rigs, optimizing character meshes for rigging, shader creation, optimizing UV space and baking texture files and lighting. Recommended background: Basic knowledge of 3D modeling, texturing and animation (IMGD 2101 and IMGD 2201 or equivalent). Students may not receive credit for both IMGD 204X and IMGD 2048.

Explanation of the Motion: Cross listing this course with Art fixes an oversight and is directed toward those students interested in learning the three cores of 3D animation to complete their humanities requirement. Many students take 3D modeling and animation courses as part of their Humanities and Art Requirement. Several of these students wish to convert their own 3D designs

into animatable characters as part of their HUA Requirement. This is not possible, however, without rigging. Fixing this oversight will allow HUA student completing a depth in Art to receive HUA credit as they complete a sequence in animation that incorporates character rigging.

Rationale: Character designs and models remain lifeless until a rig imbues life into the digital statue. As step that happens before animation, rigging encompasses the formulaic study of kinesiology and artistic anatomy. Proper study and inspection lead to a better understanding of expressed, physical movement. Students wanting to create a character and animate, are saddened to find out that rigging, a step they needed to complete their goal does not count towards their Humanities requirement. Beyond what it does on screen, rigging is primarily a design-based skill, with a technical component. The basis of all rigs is Human Centered Design, designing an interface for people to steer a digital puppet. Artistically, this class serves as the second step in the three major aspects of 3D character animation. 3D animation can be broken into three distinct areas, modeling, rigging and animation. Digital sculpting builds the models, rigging creates the structure to move the models and animation pulls a performance out of the digital marionette. The alternative name for rigging departments in large studios is digital puppetry.

Impact on Students: We believe this cross-list will allow students to fulfill their HUA requirement with a depth field in Art that focuses on 3D character animation. This will likely render them better prepared to complete their HUA Practicum in Art. This also gives students more options to students completing their HUA depth field in Art.

Resource Needs:

Instructor: Farley Chery and Ralph Sutter teach this course as part of their teaching loads. The course is a CAT II.

Classroom: This course will be taught in the IMGD Lab (Fuller 222), which already contains all the computers and software required.

Information Technology: This course will use Autodesk Maya, Autodesk 3ds MAX, Adobe Photoshop, Unreal, Unity and xNormal. All the needed software is installed in the IMGD Lab (FL 222) and the Zoo Lab (FL A21), both available for IMGD majors and other students taking this course.

Library: No additional library resources will be required.

Implementation Date: 2021-22 Academic Year

Date: May 27, 2021

To: WPI Faculty

From: Committee on Academic Operations (Prof. Mathisen, Chair)

Re: Change in course titles and descriptions for the courses in the Chinese track, as approved by the Humanities and Arts Department on 11/06/2020

Motion: The Committee on Academic Operation recommends, and I move, that the course titles and descriptions for the section of Chinese track in the UG catalog be changed as described below. The motion was approved by the HUA department 11/6, 2020.

Existing course titles and descriptions:

CN 1541. ELEMENTARY CHINESE I. (Offered in A term)

Cat. I

An intensive course to introduce the Chinese language (Mandarin) to students with no background in Chinese. Emphasis will be on learning the foundations of the sound system through pinyin and acquiring familiarity with tones. Oral language acquisition will stress structures and vocabulary required for basic communicative tasks. Cultural aspects of China introduced through course material.

This course is closed to native speakers of Chinese and heritage speakers except with written permission from the instructor.

CN 1542. ELEMENTARY CHINESE II. (Offered in B term)

Cat. I

Continuation of CN 1541 for non-native, non-heritage speakers. Emphasis on oral communication and vocabulary acquisition continues. Basics of writing system introduced.

Recommended background: CN 1541.

This course is closed to native speakers of Chinese and heritage speakers except with written permission from the instructor.

CN 1543. ELEMENTARY CHINESE III. (Offered in C term)

Cat. I

Continuation of CN 1542 Mandarin Chinese. Primary emphasis is on conversational skills, with increased character introduction. Recognition of the most-commonly-used Chinese characters will be required by term end.

Recommended background: CN 1542.

This course is closed to native speakers of Chinese and heritage speakers except with written permission from the instructor.

CN 2541. INTERMEDIATE CHINESE I. (Offered in D term)

Cat. I

Continuation of CN 1542. Course will focus on practical conversations and recognition of Chinese characters, with greater emphasis placed on reading and writing.

Recommended background: CN 1543.

This course is closed to native speakers of Chinese and heritage speakers except with written permission from the instructor.

CN 2542. INTERMEDIATE CHINESE II. (Offered in A term)

Cat. I

This course will build on intermediate Chinese conversational patterns. Class time will focus on dialogue and mastery of grammatical constructions, as well as character recognition and reading ability. Conversational drills, audio recordings, video, and group interaction will enhance classroom learning.

Recommended background: CN 2541 Intermediate Chinese I or the equivalent.

This course is closed to native speakers of Chinese and heritage speakers except with written permission from the instructor.

CN 2543. INTERMEDIATE CHINESE III. (Offered in B term)

Cat. I

Continuation of CN 2542. This course continues to build on students' Chinese conversational skills with a focus on dialogue and mastery of grammatical constructions, as well as character recognition and reading ability. Conversational drills, audio recordings, video, and group interaction will enhance classroom learning.

Recommended background: CN 2542 or the equivalent.

This course is closed to native speakers of Chinese and heritage speakers except with written permission from the instructor.

CN 2544. INTERMEDIATE CHINESE IV. (Offered in C term)

Cat. I

Continuation of CN 2543. Students continue to build their conversational skills through more complex dialogue and more complicated grammatical constructions. Character recognition and reading ability become more central to class assignments. Conversational drills, audio recordings, video, and group interaction will enhance classroom learning.

Recommended background: CN 2543 or equivalent.

This course is closed to native speakers of Chinese and heritage speakers except with written permission from the instructor.

CN 3541. ADVANCED INTERMEDIATE CHINESE I. (Offered in D term)

Cat. I

This course focuses on increasingly sophisticated conversational patterns as well as acquiring the vocabulary necessary for reading texts. Emphasis is on developing active skills to move students to a high-intermediate level of proficiency in reading, writing, listening, and speaking, with continued attention on grammar, phrases, sentence patterns, and character recognition.

Recommended background: CN 2544 or the equivalent.

This course is closed to native speakers of Chinese and heritage speakers except with written permission from the instructor.

CN 3542. ADVANCED INTERMEDIATE CHINESE II. (Offered in A term)

Cat. I

This course builds on advanced intermediate Chinese skills, focusing on both conversational patterns and reading/writing. Class time will focus on dialogue and mastery of increasingly complex grammatical constructions, with emphasis on character recognition and production for reading and writing. Emphasis will be placed on integrating materials in real-world applications. Not open to native or heritage speakers without written permission of instructor.

Recommended background: CN 3541 Advanced Intermediate Chinese I or equivalent.

Students may not receive credit for both CN 3542 and CN 354X.

CN 3543. ADVANCED INTERMEDIATE CHINESE III. (Offered in B term)

Cat. I

This course continues to build on students' advanced intermediate Chinese skills with increasing emphasis on reading and writing. Writing assignments will be geared towards expressing more complex topics in Chinese that are related to cultural phenomena in contemporary Chinese societies. Not open to native or heritage speakers without written permission of instructor.

Recommended background: CN 3542 Advanced Intermediate Chinese II or equivalent.

Students may not receive credit for both CN 3543 and CN 355X.

Proposed course titles and descriptions:

CN 1541. ELEMENTARY CHINESE I. (Offered in A term)

Cat. I

An intensive course to introduce Mandarin Chinese to students with no or little background in Chinese. Pronunciation, basic grammar rules, and character recognition will be the emphasis of the course. Handwriting of Chinese characters is not emphasized at this stage, and students are encouraged to typewrite the characters. Major aspects of Chinese culture will be introduced throughout the course. Students who have taken Chinese in high school are urged to take a placement test before enrolling in Elementary Chinese I

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 1542. ELEMENTARY CHINESE II. (Offered in B term)

Cat. I

A continuation of Elementary Chinese I, with progressive expansion of vocabulary and grammar. Pronunciation, basic grammar rules, and character recognition will continue to be the emphasis of the course. Handwriting of Chinese characters is not emphasized at this stage, and students are encouraged to typewrite the characters. Major aspects of Chinese culture will be introduced throughout the course.

Recommended background: CN 1541.

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 1543. ELEMENTARY CHINESE III. (Offered in C term)

Cat. I

A continuation of Elementary Chinese II, with progressive expansion of vocabulary and grammar. Pronunciation, basic grammar rules, and character recognition will continue to be the emphasis of the course. Handwriting of Chinese characters is not emphasized at this stage, and students are encouraged to typewrite the characters. Major aspects of Chinese culture will be introduced throughout the course.

Recommended background: CN 1542.

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 2541. INTERMEDIATE CHINESE I. (Offered in D term)

Cat. I

Building upon the foundation of the Elementary Chinese course series, this course is designed to expand students' skills in listening comprehension, speaking, reading, and writing. The course continues to enhance students' vocabulary and introduces more complex grammatical patterns, with more emphasis placed on improving communication skills both orally and in writing.

Recommended background: CN 1543.

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 2542. INTERMEDIATE CHINESE II. (Offered in A term)

Cat. I

A continuation of Intermediate Chinese I. This course is designed to expand students' skills in listening comprehension, speaking, reading, and writing. The course continues to enhance students' vocabulary and introduces more complex grammatical patterns, with more emphasis placed on improving communication skills both orally and in writing.

Recommended background: CN 2541.

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 2543. INTERMEDIATE CHINESE III. (Offered in B term)

Cat. I

A continuation of Intermediate Chinese II. This course is designed to expand students' skills in listening comprehension, speaking, reading, and writing. The course continues to enhance students' vocabulary and introduces more complex grammatical patterns, with more emphasis placed on improving communication skills both orally and in writing.

Recommended background: CN 2542.

This course satisfies the Inquiry Practicum requirement.

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 2544. INTERMEDIATE CHINESE IV. (Offered in C term)

Cat. I

A continuation of Intermediate Chinese III. This course is designed to expand students' skills in listening comprehension, speaking, reading, and writing. The course continues to enhance students' vocabulary and introduces more complex grammatical patterns, with more emphasis placed on improving communication skills both orally and in writing. Special attention will also be given to uses of nuanced and formal expressions to prepare students for the advanced level.

Recommended background: CN 2543.

This course satisfies the Inquiry Practicum requirement.

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 3541. ADVANCED CHINESE I (Offered in D term)

Cat. I

Building upon the foundation of the Intermediate Chinese course series, this course continues to develop students' integrated skills of listening, speaking, reading, and writing to meet the demand of increasing complexity and sophisticated communication at the advanced level. Expanding on topics from the concrete to the abstract, this course equips students with appropriate linguistic and cultural knowledge and skills through interpretive, interpersonal, and presentational modes of communication.

Recommendation background: CN 2544 or equivalent.

This course satisfies the Inquiry Practicum requirement.

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 3542. ADVANCED CHINESE II (Offered in A term)

A continuation of Advanced Chinese I, this course continues to develop students' integrated skills of listening, speaking, reading, and writing to meet the demand of increasing complexity and sophisticated communication at the advanced level. Expanding on topics from the concrete to the abstract, this course continues to equip students with appropriate linguistic and cultural knowledge and skills through interpretive, interpersonal, and presentational modes of communication.

Recommendation background: CN 3541 or equivalent.

This course satisfies the Inquiry Practicum requirement.

This course is closed to native speakers of Chinese and heritage speakers, except with written permission from the coordinator of the Chinese track.

CN 3543. ADVANCED CHINESE III. (Offered in B term)

A continuation of Advanced Chinese II. This course continues to develop students' integrated skills of listening, speaking, reading, and writing to meet the demand of increasing complexity and sophisticated communication at the advanced level. Expanding on topics from the concrete to the abstract, this course continues to equip students with appropriate linguistic and cultural knowledge and skills through interpretive, interpersonal, and presentational modes of communication.

Recommendation background: CN 3542 or equivalent. This course satisfies the Inquiry Practicum requirement. *This course is closed to native speakers of Chinese and heritage speakers except with written permission from the coordinator of the Chinese track.*

Explanation of Motion: The course descriptions included in the current UG catalog were written eight years ago when the Chinese track was first instituted. The Chinese track has undergone significant changes in terms of curriculum design, teaching materials, and teaching pedagogy. The changes in the course descriptions are made to reflect these changes. The term “advanced intermediate” is used to describe proficiency level, as defined by ACTFL (American Council on the Teaching of Foreign Languages) proficiency guidelines. It is not commonly used as a course level designation, and it is also a confusing description since it is not consistent across all three course levels. The changes in the course titles from “Advanced Intermediate Chinese” to “Advanced Chinese” are made to conform to the common designations used in other institutions and to avoid confusions.

Impact on students: The changes will keep students updated on the growth of the Chinese program. The changes also reflect the Chinese program’s commitment to communicative approach to language learning which are beneficial to all future students interested in taking Chinese language courses to complete their HUA requirements and the requirement for the Chinese Studies minor.

Resource Needs:

No resources beyond existing resources are needed.

Implementation Date: 2021-2022.

Date: May 27, 2021

To: WPI Faculty

From: Committee on Academic Operations (Prof. Mathisen, Chair)

RE: Addition of a Minor in Gender, Sexuality & Women's Studies (GSWS), as approved by the Department of Humanities and Arts on March 26, 2021

Motion: The Committee on Academic Operations recommends, and I move, that a minor in Gender, Sexuality & Women's Studies (GSWS) be introduced into the WPI curriculum, as described below.

A. Rationale

This proposal is for the creation of a minor in Gender, Sexuality & Women's Studies (GSWS) is based in and endorsed by the Department of Humanities and Arts (HUA). It has also been reviewed by members of the Department of Social Science and Policy Studies (SSPS).

WPI does not currently offer an official program of study that directly and specifically addresses the questions, topics, and scholarship devoted to the study of gender, sexuality, and women and the ways in which those categories intersect. In the student culture at WPI, there have been strong articulations of personal and academic interest in these topics. Across campus, students display "STEMinist" and "Women in Science" stickers on their laptops. Students have repeatedly asked - in class, in meetings, and on course evaluations - if there is a way to pursue this type of study in the form of a minor, major, and/or officially indicate their interest on their transcripts. Their interest marks a need for curricular and co-curricular spaces in which they can consider and even question social and cultural norms and their impact on their own individual identities. The popularity of HUA's inaugural GSWS courses in AY 2020-2021 - HU 1500, 2501, and 2502 - further evidences their curricular interest: of the 70 available seats in these courses, 72 were filled as of March 25. Quantitatively, a GSWS minor addresses WPI student interest (see Appendix B). The minor will incorporate current offerings in GSWS along with a wide selection of other courses in HUA and SSPS (see Appendix C for full list of courses). Therefore, the path for a minor is already in place, and the courses that will make up the minor are already offered at WPI. This proposal simply codifies that path so advisors can direct interested students toward it and students can enter it. The establishment of a GSWS minor will allow students a clear, intentional path through GSWS coursework.

This proposed minor formalizes and elevates a program of study commensurate with programs at our peer institutions. Peer institutions like MIT, Rensselaer Polytechnic Institute, Carnegie Mellon, and Rochester Institute of Technology (see Appendix A), among many others, all offer minors in GSWS, suggesting that demand for coursework in GSWS is robust and sustainable at tech schools. Several of these degree offerings are also specifically tailored to STEM students, such as UMass Amherst's "Gender, Science & Technology" minor. Given WPI's affinity for project work and cross-disciplinary collaboration as well as the establishment of the Global School, it is likely that the GSWS minor program could grow to implement a similar approach, potentially offering graduate certificates or other undergraduate options.

The GSWS minor also will open up possibilities for cross-disciplinary work with established programs on campus like IMGD, Foisie School of Business, and the Global School, including its new graduate programs. Campus-wide, students across disciplines can benefit from a program of

study that foregrounds close attention to topics relating to gender, sexuality, and women, essential skills for working effectively and equitably on projects and in the professional world. We envision this addition to the curriculum and the campus as a means of providing nuanced skills from which our students can draw during their time at project centers and during the MQP and addressing broader inequalities within STEM fields and industries. In addition, studies have demonstrated that the creation of curricular and classroom spaces such as these positively impacts rates of student retention, both during their undergraduate careers and after they enter the professional STEM environment.¹ A GSWS minor thus directly aligns with WPI's Sustainable Inclusive Excellence Action Plan. In myriad ways, it allows WPI to update its signature educational approach whilst responding to contemporary calls for diversity, equity, and inclusion.

B. Learning Outcomes and Assessment

At the conclusion of the GSWS minor sequence, students will have completed a total of two units of coursework that showcases knowledge related to Gender, Sexuality & Women's Studies.

C. Curriculum Outline

The following courses will be counted as part of the two units required for a minor in GSWS. In addition to those listed, the GSWS minor advisor may approve individual courses at their discretion, including potentially relevant courses offered in Interactive Media and Game Development (IMGD), Foisie School of Business, and the Global School.

The following catalog description for the minor is proposed for the undergraduate catalog in the section with other minors in Humanities and Arts, (2020-21 UG catalog, p. 80):

Catalog Description: Minor in Gender, Sexuality & Women's Studies (GSWS)

The minor in Gender, Sexuality & Women's Studies (GSWS) offers WPI students the opportunity to interrogate interlocking systems of oppression, including racism, sexism, homophobia, transphobia, classism, ethnocentrism, and colonialism, and their impact on people's lives on campus and across the world. This interdisciplinary minor combines course work from the humanities and arts, social science and policy studies, and other areas to examine issues relating to the study of gender, sexuality, and women. Interested students should speak with one of the GSWS-affiliated faculty in the Department of Humanities and Arts and/or Department of Social Science and Policy Studies, complete a minor designation form, and select a minor advisor.

The GSWS minor consists of a total of two units of course work (6/3) distributed in the following way:

1. 2/3: Two of the three core GSWS courses: HU 1500, HU 2501, HU 2502.

¹ For example, see Shetay N. Ashford, Jessica Alyce Wilson, Natalie S. King, and Tiffany M. Myachae, "STEM SISTA Spaces: Creating Counterspaces for Black Girls and Women," in *Emerging Issues and Trends in Education*, ed. Theodore S. Ransaw and Richard Majors (Ann Arbor: University of Michigan Press, 2017), 3-38; Anita Tijerina Revilla, "Raza Womyn – Making It Safe to be Queer: Student Organizations as Retention Tools in Higher Education," *Black Women, Gender + Families* 4, no. 1 (Spring 2010): 37-61; Philathia Bolton, Cassander L. Smith, and Lee Bebout, eds., *Teaching with Tension: Race, Resistance, and Reality in the Classroom* (Evanston: Northwestern University Press, 2019); Danny Bernard Martin, "Researching Race in Mathematics," *Teaching College Record* 111, no. 2 (February 2009): 295-338; Kristen Myers, Courtney Gallaher and Shannon McCarragher, "STEMinism" *Journal of Gender Studies* 28:6 (2019): 648-60.

2. 2/3: At least two HUA courses, at least one of which must be at the 3000 level, chosen from the following list: EN 1257, EN 2226, EN 3226, HI 2318, HI 2900,¹ HU 1500, HU 2501, HU 2502, INTL 2110, MU 2510,² MU 2632, PY/RE 2716, PY 3711, RE 3721, SP 3525, SP 3529. Other courses, including applicable experimental courses, can be substituted with the approval of a GSWS advisor.
3. 2/3: Two SSPS courses, at least one of which must be at the 2000 level or higher, chosen from the following list: ENV 2600, GOV 2320, PSY 1402, PSY 1404, PSY 1412, PSY 2407, PSY 2408, PSY 2504, PSY 3000. Other courses, including applicable experimental courses, can be substituted with the approval of a GSWS advisor.

WPI policy requires that no more than one unit of course work can be doubled counted toward other degree requirements. In other words, students must take three courses for this minor that do not count for another degree requirement.

D. Expected Enrollment

We expect to enroll 10 to 15 minors per year as the program is advertised and grows in the following years.

E. Faculty

The following faculty members will have primary responsibility for advising students pursuing a minor in GSWS:

1. Lindsay Davis, Assistant Teaching Professor of History, Department of Humanities and Arts (lgdavis@wpi.edu)
2. Rebecca Moody, Assistant Teaching Professor of Philosophy and Religion and Director of Morocco Humanities and Arts Project Center, Director of Morocco IQP Project Center, Department of Humanities and Arts (rmoody@wpi.edu)

F. Recommended Background

None. Students who have completed – or are in the process of completing – their HUA and SSPS course requirements will learn and develop the necessary skills and methods with which to successfully complete this minor.

G. Resources

No new resources are needed at this time because the minor is composed of existing courses already offered regularly. In the future, as demand for the minor grows, Arts & Sciences may want to consider adding additional faculty with the expertise to offer GSWS courses. We see this as an opportunity, not a cost, as outlined above: in growing our GSWS program, we will more closely align with peer institutions and, at the same time, we will meet a need clearly articulated by WPI students. At present, GSWS-affiliated faculty are working to meet this emergent need through grants (both internal and external). Different configurations of GSWS-affiliated faculty

¹ HI 2900: Gender & History may cover different topics and be taught by different instructors but will always center on issues relating to the study of gender.

² MU 2510: Music in the Time of Conflict will be offered 2021B by Professor Joshua Rohde.

applied for and received a WIN grant and a Teaching Innovation grant in the recent 2021-2022 funding cycle. In addition, a group of GSWS-affiliated faculty applied for a \$10 million external grant in the fall of 2021. We will continue working with Erin Harper, Associate Director of Foundation & Corporate Philanthropy, to identify and apply for similar external funding opportunities.

H. Implementation Date: Academic year 2021-2022.

I. Attached Appendices:

Appendix A: GSWS Degree Options at Peer Institutions

Appendix B: GSWS-Related Independent Studies

Appendix C: List of Courses and Instructors

Appendix D: GSWS Minor Approval Form

Appendix A: GSWS Degree Options at Peer Institutions

School	Department	Major	Minor	Other Undergraduate Options	Graduate Options
Cal Poly	+		+		
Carnegie Mellon			+		
Case Western Reserve	+	+	+		
Cornell	+	+	+		Graduate minor
Georgia Tech	Center		+		
Lehigh University	+	+	+		
MIT	+	+	+	Concentration	
Northeastern	+		+		Graduate certificate Graduate MPH certificate
Purdue	+	+	+		Graduate concentration
Purdue	Within School of ID Studies	+	+		Graduate concentration
RIT	+	+	+	Immersion	
RPI			Gender, Science & Technology minor option offered under Science & Technology Studies		
Stanford	+	+	+		PhD minor
UMass Amherst	+	+	Gender Science & Technology Minor; Women's & Gender Studies Minor; Women's		Graduate Certificate in Advanced Feminist Studies

			Leadership Minor		
Virginia Tech	Within Sociology Department		+		Graduate Certificate in Women's & Gender Studies; PhD in Sociology; MS in Sociology

Appendix B: GSWS Independent Studies

Title	Instructor	Year/Term
HU 4999: Critical Theory: Judith Butler	Kristin Boudreau	Spring 2019
HU 3999: Chinese Beauty Standards	Jennifer Rudolph	Spring 2020
HI 3999: Asian Representation in Film	Lindsay Davis	2020C
HI 3999: Colonialism & Sexuality	Holger Droessler	Fall 2020
RE 3999: Gender & Female Divinity	Rebecca Moody	2020D
RE 3999: Gender? I Barely Know'er!	Rebecca Moody	2020D
RE 3999: Gender, Patriarchy & Moroccan Film	Rebecca Moody	2021D

Appendix C: List of Courses and Instructors

Course Number	Course Title	Anticipated Instructor(s)
HU 1500	Introduction to Gender, Sexuality & Women's Studies	Lindsay Davis, Rebecca Moody, Kristin Boudreau
HU 2501	STEM-inism	Shana Lessing, Lindsay Davis, Rebecca Moody
HU 2502	Global Feminisms	Kristin Boudreau, Rebecca Moody, Aarti Smith Madan, Lindsay Davis
EN 1257	Introduction to African American Literature and Culture	Joseph Aguilar, Kristin Boudreau
EN 2226	Infected Shakespeare: Venereal Disease, Madness, Plague	Michelle Ephraim
EN 3226	Strange and Strangers	Michelle Ephraim
HI 2318	Topics in Law, Justice & Society: Race, Gender & the Law	Lindsay Davis
HI 2900	Gender and History	Emily Gioielli, Lindsay Davis, Jeanne Essame
INTL 2110	Global Justice	Geoff Pfeiffer
MU 2510	Music in the Time of Conflict	Joshua Rohde
MU 2632	Alden Voices	Joshua Rohde
PY/RE 2716	Gender, Race & Class	Jennifer McWeeny
PY 3711	Topics in Philosophy: Simone de Beauvoir	Jennifer McWeeny
RE 3721	Topics in Religion: Religion & Gender	Rebecca Moody
RE 3721	Topics in Religion: Arab Women in Film	Rebecca Moody
SP 3525	Spanish American Film/Media: Cultural Issues	Angel Rivera
SP 3529	Caribbeanness: Voices of the Spanish Caribbean	Aarti Smith Madan, Angel Rivera
ENV 2600	Environmental Problems in the Developing World	Laureen Elgert
GOV 2320	Constitutional Law: Civil Rights and Liberties	Taught in spring 2020 by George Heaton
PSY 1402	Introduction to Social Psychology	Kymerlee O'Brien, Angela Rodriguez, Jeanine Skorinko
PSY 1404	Developmental Psychology	Deeya Mitra
PSY 1412	Mental Health	Thomas Balistrieri
PSY 2407	Psychology of Gender	Jeanine Skorinko
PSY 2408	Health Psychology	Angela Rodriguez
PSY 2504	Human Sexuality	Jeanine Skorinko
PSY 3000	Psychology and Law	Jeanine Skorinko

Appendix D: Gender, Sexuality & Women’s Studies Minor Approval Form

Student Name	
WPI ID	
Expected Graduation Date	
Major(s)	
Major Advisor	
Email Address	

The GSWS minor consists of a total of two units of course work (6/3) distributed in the following way:

1. 2/3: Two of the three core GSWS courses: HU 1500, HU 2501, HU 2502.
2. 2/3: At least two HUA courses, at least one of which must be at the 3000 level, chosen from the following list: EN 1257, EN 2226, EN 3226, HI 2318, HI 2900, HU 1500, HU 2501, HU 2502, INTL 2110, MU 2510, MU 2632, PY/RE 2716, PY 3711, RE 3721, SP 3525, SP 3529. Other courses, including applicable experimental courses, can be substituted with the approval of a GSWS advisor.
3. 2/3: Two SSPS courses, at least one of which must be at the 2000 level or higher, chosen from the following list: ENV 2600, GOV 2320, PSY 1402, PSY 1404, PSY 1412, PSY 2407, PSY 2408, PSY 2504, PSY 3000. Other courses, including applicable experimental courses, can be substituted with the approval of a GSWS advisor.

See undergraduate catalog for detailed requirements.

Course Number	Course Title	Term Taken	Grade	Double Counted?

The signature below indicates the student has successfully completed the requirements for the GSWS minor.

Minor Advisor Signature

Date

Date: May 27, 2021

To: WPI Faculty

From: Committee on Academic Operations (Prof. Mathisen, Chair)

Re: Motion to add additional transition course options to the Bachelor of Science degree in Actuarial Mathematics and the Bachelor of Science degree in Mathematical Sciences, approved by Department of Mathematical Sciences Undergraduate Committee on 3/30/2021 and approved by the Department of Mathematical Sciences faculty on 4/20/2021.

Motion: The Committee on Academic Operation recommends, and I move, that the following changes be made to the requirements of the Bachelor of Science degree in Actuarial Mathematics and the Bachelor of Science degree in Mathematical Sciences.

Proposed undergraduate catalog changes:

On page 98 of the 2020 Undergraduate Catalog, we propose that the text, and corresponding departmental graduate requirements, be changed from:

“The transition courses, MA 2073, 2271, 2273, 2431, and 2631, are specifically designed to introduce the four MQP areas while preparing the student for advanced courses and the MQP.”
to:

“The transition courses, MA1033, MA1971, MA 2073, MA2211, MA2251, MA 2271, MA 2273, MA 2431, MA 2631, and MA3631 are specifically designed to introduce various ~~the four~~ MQP areas while preparing the student for advanced courses and their MQP.”

On page 99, the Figure “Mathematical Sciences Major Program Chart” but updated from:

Transition Courses
(1 unit required)

MA2073
MA2271
MA2273
MA2431
MA2631

to:

Transition Courses
(4/3 unit required)

MA1033 or MA1971 (only one)
MA2073
MA2211
MA2251
MA2271
MA2273
MA2431
MA2631
MA3631

On page 99, the Figure “Actuarial Mathematics Major Program Chart” but updated from:

Transition Courses
(2/3 unit required)

MA2073
MA2271
MA2273
MA2431
MA2631

to:

Transition Courses
(1 unit required)

MA1033 or MA1971 (only one)
MA2073
MA2211
MA2251
MA2271
MA2273
MA2431
MA2631

Explanation of Motion and Rationale: This motion will add new courses to the list of courses that are approved as transition courses. During the time since the original transition courses were approved, the needs of WPI students and their MQPs have become more varied. Accordingly, the Department of Mathematical Sciences wishes to provide students with additional flexibility.

Impact on Students: The students will have access to a larger selection of transition courses to better match their academic interests, but they will be required to take an additional 1/3 unit of coursework toward satisfying this requirement. Note, MA and MAC are unique in that the department level distribution requirements for these majors currently include 3/3 and 1/3 unit, respectively, of unspecified “additional courses”. Increasing the required transition coursework by 1/3 unit will reduce the “additional courses” requirement to 2/3 and 0/3 unit; however, MA and MAC students will continue to have 3/3 of “free electives” that all WPI students enjoy.

Resource Needs:

- **Instructor** – None. All the designated courses are already staffed, and the schedule of the classes is not planning to be changed.
- **Classroom** – None. All the designated courses already have rooms, and the schedule of the classes is not planning to be changed.
- **Library resources** – No additional needs for library resources.
- **Information Technology** – No special support or equipment is needed from ATC.

Implementation Date: The implementation date is the 2021-22 academic year.

Date: May 27, 2021

To: WPI Faculty

From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)

Re: Motion to update the catalog description of the master's program in Applied Statistics, approved by the Mathematical Sciences Department on 12/07/2020.

Motion: The Committee on Graduate Studies and Research recommends and I move that the catalog description of the master's program in Applied Statistics be updated as follows:

Current catalog description:

“Students who can demonstrate a legitimate conflict in scheduling MA 559 will be assigned an alternative activity **by the Mathematical Science Department Graduate Committee.**”

Should be changed to:

“Students who can demonstrate a legitimate conflict in scheduling MA 559 will be assigned an alternative activity **by the program coordinator.**”

Rationale:

It has been a practice for the program coordinator to handle this issue. An official update is needed.

Impact on Degree Requirements:

None.

Resources and Anticipated Instructors:

No new resources are required.

Implementation Date:

AY 2021/2022 Graduate Catalog.

Date: May 27, 2021

To: WPI Faculty

From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)

Re: Motion to update the catalog description of the master's program in Applied Mathematics, approved by the Mathematical Sciences Department on 12/07/2020.

Motion: The Committee on Graduate Studies and Research recommends, and I move, the degree requirements of the master's program in Applied Mathematics be revised as follows:

New Description:

The master's program in **Applied Mathematics** requires a minimum of 30 credit-hours of coursework. Additional credit from coursework may be required by the department depending on the student's background. The student's program must include MA 502, MA 503, and MA 510 and at least four additional MA numbered graduate courses other than MA 500, MA 501, MA 511, and MA 517.

In addition, students are required to complete a Capstone Experience, which can be satisfied by one of the following options:

- (a) A six credit master's thesis.
- (b) A three to six credit master's project.
- (c) A three credit master's practicum.
- (d) A three credit research review report or research proposal.
- (e) A master's exam.

The master's thesis is an original piece of mathematical research work, which focuses on advancing the state of the mathematical art. The master's project consists of a creative application of mathematics to a real-world problem. It focuses on problem definition and solution using mathematical tools. The master's practicum requires a student to demonstrate the integration of advanced mathematical concepts and methods into professional practice. This could be done through a summer internship in industry or an applied research laboratory. The remaining courses may be chosen from the graduate-courses or independent studies of the Mathematical Sciences Department. Up to six credits of upper-level (i.e., 4000-level) undergraduate courses in mathematics or another department may be taken for graduate credit, subject to the approval of the program coordinator. Candidates are required to successfully complete the graduate seminar MA 557.

Version with changes highlighted:

The master's program in Applied Mathematics requires a minimum of 30 credit-hours of coursework. Additional credit from coursework may be required by the department depending on the student's background. The student's program must include **MA 502**, MA 503, and MA 510, **and either MA 535 or MA 530** and **at least four additional MA numbered graduate courses** other than **MA 500**, MA 501, MA 511, and **MA 517**.

In addition, students are required to complete a Capstone Experience, which can be satisfied by one of the following options:

- (a) A six credit master's thesis.
- (b) A three to six credit master's project.
- (c) A three credit master's practicum.

(d) A three credit research review report or research proposal.

(e) A master's exam.

The master's thesis is an original piece of mathematical research work which focuses on advancing the state of the mathematical art. The master's project consists of a creative application of mathematics to a real-world problem. It focuses on problem definition and solution using mathematical tools. The master's practicum requires a student to demonstrate the integration of advanced mathematical concepts and methods into professional practice. This could be done through a summer internship in industry or an applied research laboratory. The remaining courses may be chosen from the graduate ~~offerings courses or independent studies~~ of the Mathematical Sciences Department. ~~Upper-level undergraduate mathematics courses or a two-course graduate sequence in another department may be taken for graduate credit, subject to the approval of the departmental Graduate Committee.~~ **Up to six credits of upper-level (i.e., 4000-level) undergraduate courses in mathematics or another department may be taken for graduate credit, subject to the approval of the program coordinator.** Candidates are required to successfully complete the graduate seminar MA 557.

Rationale:

This motion updates the degree requirement of the master's program in Applied Mathematics to the current practices of the department. Specifically, the motion:

- Takes into account the fundamental role of MA 502 as the main algebra class in the department
- Updates the list of departmental courses that cannot be considered as core courses for the master's program
- Clarifies the rules on the remaining courses, in particular waives the requirement that non-departmental courses have to stem from a not explicitly defined "sequence"
- Makes the program coordinator (and not the graduate program committee) as instance for approvals of extra-departmental courses.

Impact on Degree Requirements:

The motion revises the courses that satisfy the degree requirements for the Master's degree in Applied Mathematics.

Resources and Anticipated Instructors:

No new resources are required.

Implementation Date:

AY 2021/2022 Graduate Catalog.

Date: May 27, 2021

To: WPI Faculty

From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)

Re: Motion to change the title, description and number of credits associated with the course MA 557 Graduate Seminar in Applied Mathematics, approved by the Mathematical Sciences Department on 04/27/2021.

Motion: The Committee on Graduate Studies and Research recommends, and I move, the number of credits associated with the course “MA 557 requirements of the master’s program in Applied Mathematics is changed as follows:

New Course Description:

MA 557 Graduate Seminar in Applied Mathematics

(0 credits)

This seminar introduces students to modern issues in Applied Mathematics. In the seminar, students and faculty will read and discuss survey and research papers, make and attend presentations, and participate in brainstorming sessions toward the solution of advanced mathematical problems.

Old Course Description:

MA 557 Graduate Seminar in Analysis and Applied Mathematics

(1 credit)

This seminar introduces students to modern issues in Analysis and Applied Mathematics. During the seminar, students and faculty will present and discuss recent research papers from the literature. Students will gain insights about current advances In the mathematical sciences and their applications.

Version with changes highlighted:

MA 557 Graduate Seminar in ~~Analysis and~~ Applied Mathematics

~~(0 credits)~~ **(1 credit)**

This seminar introduces students to modern issues in ~~Analysis and~~ Applied Mathematics.

~~During the seminar, students and faculty will present and discuss recent research papers from the literature. Students will gain insights about current advances In the mathematical sciences and their applications. In the seminar, students and faculty will read and discuss survey and research papers, make and attend presentations, and participate in brainstorming sessions toward the solution of advanced mathematical problems.~~

Rationale:

The main point is the change of the number of credits associated with the seminar. Historically, this was a seminar, a degree requirement for the Applied Mathematics master’s program, that could be taken as “10th credit” on a typical TA load. As currently most of our master’s students are not supported by TAs, this additional 1 credit places an additional burden to students as it does not fit well with a 30 credits degree requirement and nearly all departmental courses offered for 3 credits. Also, this change aligns the seminar with the seminar MA 562 for the professional

master's programs in financial mathematics and industrial mathematics that are also 0 credit. The change in the title highlights the practice that this seminar is about Applied Mathematics in general, without a particular role of Analysis. The more detailed description of seminar activities follows the analog seminar in statistics (MA 559).

Impact on Degree Requirements:

The motion converts the seminar course from 1 credit to 0 credits. The degree requirements are otherwise unchanged.

Resources and Anticipated Instructors:

No new resources are required.

Implementation Date:

AY 2021/2022 Graduate Catalog.

Date: May 27, 2021

To: WPI Faculty

From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)

Re: Motion to approve a new graduate course '*Computational Statistics*' (MA551), approved by the Mathematical Sciences Department on 12/07/2020.

Motion: The Committee on Graduate Studies and Research recommends, and I move, that MA551 '*Computational Statistics*' as described below, be included as a permanent course to the Mathematical Sciences Graduate Program. The description of the proposed course, to be included in the WPI Graduate Catalog, is provided below.

Course Catalog Description:

MA551: *Computational Statistics*.

Computational statistics is an essential component of modern statistics that often requires efficient algorithms and programming strategies for statistical learning and data analysis. This course will introduce principles and techniques of statistical computing and data management necessary for computationally intensive statistical analysis especially for big data. Topics covered include management of large data (data structure, data query), parallelized data analyses, stochastic simulations (Monte Carlo methods, permutation-based inference), numerical optimization in statistical inference (deterministic and stochastic convex analysis, EM algorithm, etc.), randomization methods (bootstrap methods), etc. Students will use these techniques while engaging in hands-on projects with real data. Students who have taken the MA590 version of this course cannot also earn credit for MA 551.

Prerequisites:

No previous programming knowledge/experience is assumed. Some knowledge of probability and statistics, or MA511 equivalent is recommended.

Rationale:

Many statistical modeling and data analysis techniques can be challenging to grasp and apply, and it is often necessary to use computer software to aid the implementation of large data sets and to obtain useful results. Computational data analysis is an essential part of modern statistics. Competent statisticians must not just be able to run existing programs, but to understand the principles on which they work. This class is an introduction to programming, targeted at statistics majors with minimal programming knowledge, which will give them the skills to grasp how statistical software works, tweak it to suit their needs, recombine existing pieces of code, and when needed create their own programs.

Students will learn the core ideas of data structures, data management, data query, flow control, numerical and graphical statistical analyses. They will also learn how to set up stochastic simulations, how to parallelize data analyses, how to employ numerical optimization algorithms (deterministic and stochastic convex analysis, EM algorithm, etc.) and diagnose their limitations, and how to work with and filter large data sets. They will also study important statistical methods that rely heavily on computation, including the randomization methods (Bootstrap

methods, jackknife methods, etc.), EM algorithm, Monte Carlo methods, and permutation-based inference. and others (estimation of functions, graphical methods, etc.)

The applied statistics curriculum lacks a course dedicated to these computational statistics skills in one integrated course. It becomes critical to prepare our students to adapt for the increasing demand of current job market and the trend of statistics practices in research, industry, and business. As such, the statistics group has reached agreement to revise our curriculum and reinforce the statistical education of its computational aspect by adding this new course to the current curriculum.

Intended Audience:

Computational Statistics has been offered as MA590 Topic Course in academic years 2018-2019 and 2019-2020. The official enrollments of previous two offerings were 9 and 11. The majority of students were from the MS program in Applied Statistics and the PhD programs in Statistics and in Mathematical Sciences. Some students from Data Science and Computer Science audited the course too. The students have favorable feedback on the course for filling the skills gap of the existing curriculum. The course ratings were 4.3 and 4.5, and instructor ratings were 4.5 and 4.7, respectively.

The intended audience for the course includes graduate students from the department of Mathematical Sciences as well as other departments and programs related to computational and quantitative sciences, such as Data Science, Computer Science, Engineering, Business, and Business Management. The techniques of statistical computing and data management that are covered in this course are very valuable to these students. We plan to reach out and advertise the course cross campus. With a permanent course number and title (instead of Topic Course) and the positive feedback, we project that the enrollment of the course will keep growing to the range of 15-30 students.

Preferred Semester:

Fall semesters, and offered once annually

Expected enrollment:

15-30 students

Anticipated/interested Instructor(s):

Professors: Jian Zou, Zheyang Wu, Buddika Peiris, Fangfang Wang, and Adam Sales.

Resource Requirements

- a) Currently available resources: Professors Jian Zou, Zheyang Wu, Buddika Peiris, Fangfang Wang, and Adam Sales.
- b) A traditional classroom with the capacity to hold 15-30 students.

Impact on Core Area Requirements of the Applied Statistics Program and Other Courses:

Students of all majors may take this course as a free elective. For Applied Statistics students, it will be a recommended course taken during their first semester.

Effective Date: It is the Graduate Studies and Research Committee's proposal that '*Computational Statistics*' be added to the Applied Statistics program curriculum for the Academic Year 2021/2022, and be added to the WPI Course Catalog at that time.

Date: May 27, 2021
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to Place CS 547 in the AI and Databases bins for the M.S. and Ph.D. in Computer Science

Motion: The Committee on Graduate Studies and Research recommends and I move that CS 547 (Information Retrieval) be added to the AI and Databases bins in the M.S. and Ph.D. programs as described below. This motion was approved on 04/27/21 by the CS faculty.

Description of changes to the WPI Graduate Catalog:

On page 81 of the Graduate Catalog, the graduate bins are listed. This motion would alter the requirements as follows for the Breadth Bins databases bullet as described below. Additions are indicated in *underlined italics* (with deleted text indicated by ~~strikethroughs~~).

- AI: 534, 538, 539, 540, 541, 547, 548, 549, 566
- Databases: 542, 547, 561, 585, 586

Rationale:

Now that the DS/CS 547 is a permanent offering, we need to assign it to a bin for students to get appropriate distribution credit. The course instructor who has been teaching CS 547 has indicated both the AI and the Databases bins would be appropriate for the course. The instructor met with three other CS faculty in the area and the group reached consensus on this designation.

Other courses span multiple bins, such as CS 549 ("Computer Vision," which is in the AI and Graphics/Imaging bins) and CS 558 ("Network Security," which is in the Networks and Cybersecurity bins). As with the other two multi-bin courses, students could apply CS 547 to either the AI or Databases bin, but the single course could count for at most one bin; it could not be used by a student to satisfy both bins.

This motion was approved by the faculty in the Computer Science Department at their meeting on April 27, 2021.

Resource Impact: No additional resources are required.

Implementation Date: The proposed policy would go into immediate effect upon approval.

Date: May 27, 2021
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to add CH 520. Cell Signaling

Motion: The Committee on Graduate Studies and Research recommends and I move that we move Cell Signaling, which has a temporary designation of CH555 (Advanced Topics) to CH520 Cell Signaling.

**Proposed Course/Catalog Description or proposed Modifications to Graduate Catalog:
CH 520. Cell Signaling.**

Cell signaling defines the way cells respond to changes in their environment including, heat, nutrients, drugs, hormones, and other factors. These external factors allow cells to grow, divide, migrate and proliferate depending on the stimulus, and inappropriate responses lead to cancer and other diseases. This course is directed for advanced undergraduates and graduate level course that is a combination of on-line lectures, discussions, and review of recent literature. Students who previously took the CH555 version of this course cannot take CH 520 for credit.

Rationale: The course is offered every 2 years to upper level undergraduate and graduate students. It is currently one of the required courses in the CBC graduate program. It is offered as a 3 credit, 7 week class. The rationale for having the class in academic terms rather than semesters is to allow upper level undergraduates take the class. The class was offered in D17 and D19 term and had 11 (D17) and 7 (D19) students from CBC, BME and BBT. Although the course was offered in traditional format, we would like to offer the class as on-line class in C term to optimize scheduling for students in our graduate programs.

Impact on Degree Requirements: Currently, the course is required for our Biochemistry track graduate students, and elective for Chemistry track students. It will be required for the Medicinal Chemistry MS program.

Resources and Anticipated Instructors: No additional resources are needed, ATC support will be sought.

Implementation Date: Implementation date for this action will be AY2021-2022.

Date: May 27, 2021
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to require CE 596 Graduate Seminar in the Ph.D. program

Motion: The Committee on Graduate Studies and Research recommends, and I move that a new Graduate Seminar requirement be added to the Ph.D. program in Civil and Environmental Engineering as described below.

Proposed Modifications to Graduate Catalog: We propose the Graduate Catalog be modified as follows.

Under “Degree Requirements, For the Ph.D.,” we propose the following requirement be added: All full-time Ph.D. students will be required to complete the CE 596 Graduate Seminar, or equivalent, three times with a passing grade. Ph.D. students will be required to present in the Graduate Seminar at least once during their program of study.

Rationale: The purpose of the Graduate Seminar is to provide a forum to learn about and discuss current issues and research developments in the field of civil and environmental engineering. The Graduate Seminar will also provide an opportunity for students to network with other researchers both internal and external to WPI. The proposed requirement is consistent with similar requirements in other programs on campus.

Resources and Anticipated Instructors: The Department of Civil and Environmental Engineering already organizes a seminar series. Therefore, no additional resources are requested.

Implementation Date: Implementation date for this action is the 2021-2022 academic year.

Date: May 27, 2021
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to add new graduate course – CE596 Graduate Seminar

Motion: The Committee on Graduate Studies and Research recommends, and I move that the following new course in Civil and Environmental Engineering be added as described below.

Proposed Course/Catalog Description or proposed Modifications to Graduate Catalog:

CE 596. Graduate Seminar

0 credits

Seminars on current issues and state-of-the-art research in civil and environmental engineering given by guest speakers, faculty, and students.

Rationale: The purpose of the Graduate Seminar is to provide a forum to learn about and discuss current issues and research developments in the field of civil and environmental engineering. The Graduate Seminar will also provide an opportunity for faculty and students to network with other researchers both internal and external to WPI. The proposed course is consistent with similar courses in other programs on campus.

Grading: The course will be graded pass/fail based on attendance.

Impact on Degree Requirements: All full-time Ph.D. students in Civil and Environmental Engineering will be required to fulfill a Graduate Seminar requirement. Full-time Ph.D. students will be required to complete the Graduate Seminar, or equivalent, at least 3 times.

Resources and Anticipated Instructors: The Department of Civil and Environmental Engineering already organizes a seminar series. Therefore, no additional resources are requested.

Implementation Date: Implementation date for this action is the 2021-2022 academic year.

Date: May 27, 2021
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motions to approve BME cross-listing of ME and RBE graduate courses focused on biomedical materials, medical device design, and medical robotics.

Motion: The Committee on Graduate Studies and Research recommends, and I move that the following cross-listings and course descriptions be added to the BME section of the graduate catalog, as described below.

The ME graduate courses proposed for BME cross-listing are new and were approved by CGSR and will be listed in the AY21-22 graduate catalog. The RBE graduate courses proposed for BME cross-listing are existing courses that are listed in the AY20-21 graduate catalog.

This motion was approved by the ME, RBE and BME faculty.

Proposed Cross-listings:

BME 530/ME 5359/MTE 559 Biomedical Materials

2 credits

This course is intended to serve as a general introduction to various aspects pertaining to the application of synthetic and natural materials in medicine and healthcare. This course will provide the student with a general understanding of the properties of a wide range of materials used in clinical practice. The physical and mechanical property requirements for the long term efficacy of biomaterials in the augmentation, repair, replacement or regeneration of tissues will be described. The physico-chemical interactions between the biomaterial and the physiological environment will be highlighted. The course will provide a general understanding of the application of a combination of synthetic and biological moieties to elicit a specific physiological response. Examples of the use of biomaterials in drug delivery, theranostic, orthopedic, dental, cardiovascular, ocular, wound closure and the more recent lab-on-chip applications will be outlined. This course will highlight the basic terminology used in this field and provide the background to enable the student to review the latest research in scientific journals. This course will demonstrate the interdisciplinary issues involved in biomaterials design, synthesis, evaluation and analysis, so that students may seek a job in the medical device industry or pursue research in this rapidly expanding field. Students cannot receive credit for this course if they have received credit for the Special Topics (ME 593/MTE 594) version of the same course, or for ME/BME 4814 Biomedical Materials.

BME 533/ME 5503 Medical Device Innovation and Development

2 credits

The goal of this course is to introduce medical device innovation strategies, design and development processes, and provide students with an understanding of how medical device innovations are brought from concept to clinical adoption. Students will have opportunities to practice medical device innovation through a team-based course project. Specific learning

outcomes include describing and applying medical device design and development concepts such as value proposition, iterative design, concurrent design and manufacturing, intellectual property, and FDA regulation; demonstrating an understanding of emerging themes that are shaping medical device innovation; demonstrating familiarity with innovation and entrepreneurship skills, including customer discovery, market analysis, development planning, and communicating innovation; and gaining capability and confidence as innovators, problem solvers, and communicators, particularly in the medical device industry but transferable to any career path.

BME/RBE 520. Biomechanics and Robotics

This course introduces Biomechanics and Robotics as a unified subject addressing living and man-made “organisms”. It draws deep connections between the natural and the synthetic, showing how the same principles apply to both, starting from sensing, through control, to actuation. Those principles are illustrated in several domains, including locomotion, prosthetics, and medicine. The following topics are addressed: Biological and Artificial sensors, actuators and control, Orthotics Biomechanics and Robotics, Prosthetic Biomechanics and Robotics: Artificial Organs and Limbs, Rehabilitation Robotics and Biomechanics: Therapy, Assistance and Clinical Evaluation, Human-Robot Interaction and Robot Aided Living For Healthier Tomorrow, Sports, Exercise and Games: Biomechanics and Robotics, Robot-aided Surgery, Biological Inspired Robotics and Micro-(bio) robotics, New Technologies and Methodologies in Medical Robotics and Biomechanics, Neural Control of Movement and Robotics Applications, Applied Musculoskeletal Models and Human Movement Analysis. This course meshes physics, biology, medicine and engineer and introduces students to subjects that hold promise to be one of the most influential innovative research directions defining the 21st century. (Recommended background: foundation of physics, linear algebra and differential equations; basic programming skills e.g. MATLAB, undergraduate level biomechanics, robotics).

BME/RBE 580/ME 5205. Biomedical Robotics

2 credits

This course will provide an overview of a multitude of biomedical applications of robotics. Applications covered include: image-guided surgery, percutaneous therapy, localization, robot-assisted surgery, simulation and augmented reality, laboratory and operating room automation, robotic rehabilitation, and socially assistive robots. Specific subject matter includes: medical imaging, coordinate systems and representations in 3D space, robot kinematics and control, validation, haptics, teleoperation, registration, calibration, image processing, tracking, and human-robot interaction. Topics will be discussed in lecture format followed by interactive discussion of related literature. The course will culminate in a team project covering one or more of the primary course focus areas. (Prerequisites: Linear algebra, ME/RBE 501 or equivalent.) Students cannot receive credit for this course if they have taken the Special Topics (ME 593U) version of the same course.

Rationale:

These courses cover relevant material of interest to BME graduate students that complements (with minimal overlap) BME course offerings in design of medical technologies. Cross-listing

these courses with BME will enable students to meet BME course distribution requirements for graduate degrees while taking a focused program of study in medical device design and innovation.

Impact on Degree Requirements:

These courses are not required for any degree. However, it will help students satisfy the degree requirements for BME course credits in the BME graduate programs.

Resources and Anticipated Instructors:

These courses are already approved and being taught by instructors in the ME and RBE departments as part of their regular teaching load.

Implementation Date:

Implementation date for this action is the 2021-2022 academic year.

Date: May 27, 2021
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to approve a new graduate course ME 5503 *Medical Device Innovation and Development*

Motion: The Committee on Graduate Studies and Research recommends, and I move that ME 5503 (Medical Device Innovation and Development) be added, as described below.

Proposed Course Description:

ME 5503 Medical Device Innovation and Development (2 Credits)

The goal of this course is to introduce medical device innovation strategies, design and development processes, and provide students with an understanding of how medical device innovations are brought from concept to clinical adoption. Students will have opportunities to practice medical device innovation through a team-based course project. Specific learning outcomes include describing and applying medical device design and development concepts such as value proposition, iterative design, concurrent design and manufacturing, intellectual property, and FDA regulation; demonstrating an understanding of emerging themes that are shaping medical device innovation; demonstrating familiarity with innovation and entrepreneurship skills, including customer discovery, market analysis, development planning, and communicating innovation; and gaining capability and confidence as innovators, problem solvers, and communicators, particularly in the medical device industry but transferable to any career path.

Expected enrollment: 20-40 students

Intended audience: Graduate students in ME, MTE, BME, RBE, and ECE

Anticipated Instructor: Prof. Yihao Zheng

Rationale:

The course has been approved by the faculty of the ME program on January 8, 2021.

Target audience: Students interested in a career in medical device industry or research, a methodology towards medical device innovation, or a roadmap for technology commercialization or product development. This course will also prepare students who plan to take the ME Ph.D. Candidacy Exam in the Biomechanical Engineering area.

The United States is the world's largest medical device market, and it shows no signs of slowing (expected to grow to \$208 billion by 2023). The medical device industry includes almost two million jobs in the United States. Medical device workers are more highly skilled, better educated, and better paid than workers in manufacturing as a whole—and in the economy

overall. It is critical to equip our students who are interested in medical device industry with the innovation capability and the device development roadmap.

Massachusetts is a leading state in the production of medical devices and has top healthcare services. This provides WPI advantages to cultivate innovators and workforce in medical device industry. WPI has several graduate courses relating to medical device design and regulation including: BME 531 Biomaterials in the Design of Medical Devices, BME 532 Medical Device Regulation, and BME 535 Medical Device Design Controls. This proposed course emphasizes the medical device innovation strategies and commercialization pathway, while echoing the importance of FDA regulations and device development lifecycle introduced in BME 532 and 535, respectively.

Impact on Degree Requirements:

This course is not a required course for any degree. However, it will help students satisfy degree requirements for taking ME course credits in the ME graduate programs.

Resources and Anticipated Instructors:

This course is included in the regular teaching load of Prof. Yihao Zheng. A regular classroom capable of holding 20-40 students with a computer and projector is required.

Implementation Date:

Implementation date for this action is the 2021-2022 academic year.

Date: May 27, 2021
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to approve a new graduate course BCB 555 Journal Club in Quantitative Cell Biology

Motion: The Committee on Graduate Studies and Research recommends and I move that the following new graduate course be added to the WPI Graduate Catalog, as described below. The motion was approved by the BCB on 05/05/2021.

Proposed Course/Catalog Description:

BCB 555 Journal Club in Quantitative Cell Biology

1 credit

This course is offered every other semester, discussing topics on quantitative cell biology that advance our understanding of the function of cellular systems. The focus is on reading, presenting, and discussing the most recent literature in the field. Graduate students and advanced undergraduate students with an interest in quantitative biology are encouraged to participate.

Rationale: The field of quantitative biology is advancing at a remarkable rate, with rapid parallel advances in computational capacity. Because of these rapid advances, there is a need for biology students to acquire and develop multidisciplinary skills. Developing theory at the cell biological level is also critical because the cell is the fundamental unit of living systems. Hence, an in-depth understanding of basic biological function resides at the interface of biology, mathematical/biophysical theory, and computational methods. In addition, the recent literature is abundant on novel methods of quantitative, super-resolution, and ultrafast multidimensional microscopy. Many of these novel methods possible because of advances in computational methods, such as artificial intelligence and machine learning. The journal club was previously offered as a BCB Selected Topic course and has been well-attended during the last two offerings and received positive reviews. It was cross-listed with a general Journal Club course (BB554), when the instructor and topic were equivalent, and we plan to cross-list it with a new BBT Journal Club course dedicated to computational methods for future offerings.

F19-BCB590- 8 students – Q1-5, Q2-4.7, Q7-4.3

F20-BCB590- 3 students – Q1-5, Q2-5, Q7-5

F20-BB554 - 10 students – Q1-4.2, Q2-4.6, Q7-3.9

Impact on Degree Requirements: This course will have a positive impact on degree requirements because it provides a one-credit course offered once a year. Students from other programs/departments will also benefit from having this option. The course should also be advantageous to upper-level undergraduate students and those enrolled in BS/MS programs.

Resources and Anticipated Instructors: The instructors for the course were Luis Vidali (BB) and Min Wu (MA). The instructors plan to continue to teach the course, so no additional

resources are required. The instructors plan to recruit additional instructors with similar interests to increase the reach of the journal club.

Implementation Date: Implementation date for this action is the 2021-2022 academic year.

Date: May 27, 2021
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to add the MS in AE with Thesis Option

Motion: The Committee on Graduate Studies and Research recommends, and I move that the M.S. with Thesis option be added to the M.S. Degree and B.S./M.S. descriptions approved for inclusion in the 2021-22 Graduate Catalog during the 1/28/2021 Faculty meeting. Additions are underlined, deletions are in ~~strike through~~. The motion was approved by the AED on 4/12/2021.

M.S. in Aerospace Engineering Degree

When applying to the Master of Science in Aerospace Engineering degree, students must specify their intention to pursue either the thesis or the non-thesis option. Both options require the completion of 30 graduate credit hours. Students in the thesis option must complete 8 credits of thesis research (AE 5099), whereas students in the non-thesis option may complete up to 8 credits of directed research (AE 5098). Petitions to transfer from/to the non-thesis to/from the thesis option will be considered by the graduate committee.

M.S. in Aerospace Engineering Degree with Thesis Option

Students interested in research with a focus in a specific area are encouraged to select the M.S. AE degree with thesis option which requires a minimum of 8 graduate credit hours in AE 5099 MS Thesis. Students must select a thesis advisor from the AED faculty prior to registration in AE 5099. The thesis advisor also serves as the academic advisor of the student. The thesis submission follows WPI's rules.

The distribution of credits for the M.S. in AE degree with the thesis option is as follows:

- 20 graduate credits in Aerospace Engineering
 - A minimum of 2 graduate credits in each of the five AE Curricular Areas: Fluid Dynamics; Propulsion and Energy; Flight Dynamics and Controls; Materials and Structures; General Aerospace Engineering Topics
 - A minimum of 8 graduate credits in MS Thesis AE 5099
 - 0 graduate credits for four terms in Aerospace Engineering Seminar (AE 5032)
- 10 graduate credits in electives
 - 8 graduate credits in free electives inside or outside AE
 - 2 graduate credits in applied mathematics (MA 501, MA 511, or any other course with the prior approval of the AE graduate committee)

TOTAL 30 Credits

M.S. in Aerospace Engineering Degree with Non-Thesis Option

....

The Combined B.S./M.S. Program (as approved in 1/28/2021 for the 2021-22 Graduate Catalog)

The ~~AE Program~~ offers a combined B.S./M.S. program in Aerospace Engineering is available for currently enrolled WPI ~~undergraduates~~ in Aerospace Engineering majors. Students in the program may complete the B.S. and the M.S degree in Aerospace Engineering in approximately five years of study. When applying to the B.S./M.S. program, students must specify their intention to pursue either the thesis or the non-thesis option. Both options require the completion of 30 graduate credit hours. Students in the thesis option must complete 8 credits of thesis research (AE 5099), whereas students in the non-thesis option may complete up to 8 credits of directed research (AE 5098). Petitions to transfer from/to the non-thesis to/from the thesis option will be considered by the graduate committee. The M.S. degree requires the completion of 30 graduate credit hours.

The distribution of credits is as follows:

-
- Thesis Option: A minimum of 8 credits in AE 5099 M.S. Thesis.
- Non-Thesis Option: A maximum of ...
- ...

To be inserted under the AE Course Descriptions:

AE 5099. M.S. Thesis

Graduate students enrolled in the Master of Science thesis-option program must complete 8 credits total in AE 5099, present the results in a public forum approved by the Thesis Advisor, and submit a Master's thesis approved by the Thesis Advisor and the AED Graduate Coordinator. (Prerequisite: enrolled in M.S. in Aerospace Engineering with Thesis option).

Rationale

The proposed MS thesis option along with the MS non-thesis option provides flexibility and makes our MS in AE degree more marketable. The MS in AE with thesis option will provide students the opportunity to focus on a research area by completing a thesis. The MS with a thesis option has been requested by prospective students, and this motion addresses the need. MS students in the thesis option will also increase the research performed in the department. Finally, this motion makes the thesis option available to our BS/MS students.

Resources and Anticipated Instructors

None.

Impact on Degree Requirements

There is no impact on distribution requirements. The thesis option mirrors the requirements of the non-thesis option.

Implementation Timeline

Implementation date for this action is the 2021-2022 Academic year.

COMMITTEE BUSINESS

Date: May 27, 2021

To: WPI Faculty

From: Committee on Academic Operations (Prof. Mathisen, Chair)

Re: Motion to approve the May 2021 undergraduate student graduation list

Motion: The Office of the Registrar reports that the following candidates have either completed all the requirements for the degree designated in the department or program indicated, or are expected to complete their degree requirements before May 22, 2021. They therefore are or will be eligible to receive that degree, and on behalf of the Committee on Academic Operations, I move that – pending final verification by the Registrar that all those on the list have in fact completed their degree requirements – they be approved for May 22, 2021 graduation.

Date: May 27, 2021

To: WPI Faculty

From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)

Re: Motion to approve the May 2021 graduate student graduation list

Motion: The Office of the Registrar reports that the following candidates have either completed all the requirements for the degree designated in the department or program indicated, or are expected to complete their degree requirements before May 20, 2021. They therefore are or will be eligible to receive that degree, and on behalf of the Committee on Graduate Studies and Research, I move that – pending final verification by the Registrar that all those on the list have in fact completed their degree requirements - they be approved for May 20, 2021 graduation.

Date: May 27, 2021

To: WPI Faculty

From: Committee on Governance (Prof. Boudreau, Chair)

Re: Motion to update Part Two of the Faculty Handbook to include a sample appointment letter for Professors of Practice

Motion: The Committee on Governance recommends and I move that Appendix B be added to Part Two of the Faculty Handbook to include a sample appointment letter for Professors of Practice, as described below.

Description of the Motion:

APPENDIX B: Sample Appointment Letter for all Professors of Practice *

[Date]

[Insert Name]

[Address]

[Address]

[City, State ZIP]

RE: Offer of Appointment

Dear [Name]:

On behalf of Worcester Polytechnic Institute (“WPI”), and upon the recommendation of [Dean] and [Department Head and/or Program Director], I am pleased to offer you a non-tenured appointment with the following details:

Term of Appointment: 5 years

Title: [Professor of Practice]

Department: [insert]

Salary: [insert]

Start Date: [insert]

Our [Year/Year] academic year begins on [Date] and ends with Commencement on [Date]. Faculty salaries are paid in twelve (12) equal monthly installments on the last business day of each month.

If, as I hope, you find this offer to be satisfactory, please indicate your acceptance by signing, dating, and returning the original letter to [Contact/Address] by no later than [Date]. If you require any additional time to consider this offer, please contact [Department Head/Program Director].

Please note that items 1, 2, and 3 only apply to new appointees and only need to be completed once.

By accepting this offer, you agree to the following terms, as applicable, to your specific appointment:

- 1. Eligibility for Employment.** Your offer of employment is contingent upon: (i) complying with the Immigration Reform and Control Act of 1986, as amended by providing proof of eligibility to work in the United States through completion of the I-9 form in the online onboarding within (3) three business days of your start date; (ii) obtaining and maintaining the necessary visa paperwork for travel to, and work in, the United States, as appropriate; and (iii) a successful background check as detailed in WPI’s [Background Check Policy](#). If the result of the background check is not satisfactory, this appointment is voidable by WPI,

* If there are any inconsistencies or disagreements between language elsewhere in the faculty handbook and in this appointment letter, the terms of this appointment letter will apply.

consistent with the [Background Check Policy](#). You will receive a separate email from WPI's external vendor, HireRight on how to authorize this process.

- 2. Temporary Change to I-9 Requirement.** Due to precautions being implemented by employers and employees related to physical proximity associated with COVID-19, the Department of Homeland Security (DHS) announced that it will exercise discretion to defer the physical presence requirements associated with Employment Eligibility Verification (Form I-9) under Section 274A of the Immigration and Nationality Act (INA). Employers with employees taking physical proximity precautions due to COVID-19 will not be required to review the employee's identity and employment authorization documents in the employee's physical presence. However, employers must inspect the Section 2 documents remotely (e.g., over video link, fax or email, etc.) and obtain, inspect, and retain copies of the documents, within three (3) business days for purposes of completing Section 2. Once normal operations resume, all employees who were on-boarded using remote verification, must report to their employer within three (3) business days for in-person verification of identity and employment eligibility documentation for Form I-9, Employment Eligibility Verification.
- 3. COVID-19 Training.** If you will be working on campus, before you arrive, you will be required to complete COVID-19 training through our online WPI Learning Academy by logging in with your new WPI email address. Detailed instructions for this training will be provided by the Division of Talent & Inclusion. You must also follow COVID testing protocols and use WPI's Symptom Tracker daily to be on campus. For additional information on testing and symptom tracking, please go to <https://www.wpi.edu/we-are-wpi/employees-and-workplace>.
- 4. Benefits.** In addition to your compensation, WPI offers a comprehensive benefits package which includes medical, dental, life and disability insurance, holidays, and additional benefits that will be discussed during orientation. Summary plans and additional information are available [here](#). Faculty are required, as a condition of employment, to begin participation in the WPI Retirement Plan upon the attainment of one (1) year of service at WPI. Please note that you must make your elections for benefits online within thirty (30) days from your date of hire in order to receive benefits for the remainder of the calendar year. WPI reserves the right to change its benefits package at its sole discretion.
- 5. Protections.** WPI guarantees it shall not retaliate against you based on your exercise of the full range of academic freedom, as defined in the [WPI Faculty Handbook](#), including your participation in faculty governance and your guaranteed right to express your views boldly and without reprisal or impact on reappointment or termination decisions. Additionally, WPI guarantees your access to the grievance procedures as set forth in the [WPI Faculty Handbook](#).
- 6. Initial Appointment for New Hires.** Initial appointments of Professors of Practice will be for five (5) years. The initial appointments are made on the recommendation of the Department Head and/or Program Director and require both review by the Committee on

Appointments and Promotions (COAP) and approval of the appropriate Dean and the Provost.

7. **Reappointment Terms.** The Department Head and/or Program Director (with input from members of the department and/or program and the appropriate Dean) may recommend to COAP that a Professor of Practice receive a subsequent five (5) year appointment. These five (5) year reappointments are to be reviewed by COAP and passed on to the Provost for action. If a Professor of Practice is reappointed, the reappointment shall be for a term of five (5) years.
8. **Responsibilities and Workload.** Following discussions between you and the Department Head and/or Program Director, your responsibilities and workload are to be determined by the Department Head and/or Program Director and reflected in writing and attached hereto as Exhibit A. No changes in responsibilities and workload may be made during an appointment unless mutually agreed upon between you and the Department Head and/or Program Director in writing.
9. **Performance Reviews.** Each year, during “C” or “D” term, your performance will be reviewed. Annual reviews will include assessment of high quality teaching (based on course evaluations, project evaluations, and other relevant information) and documented evidence that the Professor of Practice has maintained significant relevant currency in the field. These evaluations will be made by the Department Head and/or Program Director, the appropriate Dean, and the Provost, and will also take into consideration any other activities described in Exhibit A of the official letter of appointment from the Provost consistent with any changes made as described in item 8 above. These annual reviews will include written summaries with copies shared with the faculty member and kept on file.
10. **Grounds for Reappointment / Non-Reappointment.** Professors of Practice to be reappointed should, by virtue of their non-academic industry-related experiences, continue to bring a unique current area of expertise to teaching. This experience and expertise must be distinct from that which would be brought by a conventional tenured or tenure-track faculty member and should be aligned with a specific institutional need or required area of expertise. The reappointment should be based on the extent to which these reappointment criteria are met, on the quality of teaching performance (and of any other activities described in previous appointment letters consistent with any changes made as described in item 8 above) at WPI, and on documented evidence that the Professor of Practice has maintained significant relevant currency in the field. These reappointments are contingent on a continued institutional need for your specific area of expertise. You may grieve non-reappointment through the Faculty Review Committee grievance process.
11. **Notice of Non-Reappointment.** WPI will notify you one (1) year before the end of your five (5) year appointment of a decision by the Department Head and/or Program Director not to recommend you to COAP for reappointment. Alternatively, if you are recommended by the Department Head and/or Program Director to COAP for reappointment, then WPI will notify you by no later than the beginning of “D” term of the final year of your five (5) year appointment of the Provost’s decision not to reappoint you.

12. Discipline and Termination During Appointment. You will not be disciplined, suspended, or discharged without “just cause,” which is defined as: (i) misconduct as defined in the Policy on Faculty Conduct, the Policy on Research Conduct, the Sexual Misconduct Policy, or the Title IX Policy (whichever is applicable); or (ii) financial emergency. Any discipline, including suspension or termination, during an appointment may only be imposed pursuant to the process set forth in the relevant policy identified in this paragraph.

Your signature constitutes your formal acceptance of this appointment and confirms that no promises, representations, or agreements that are inconsistent with any of the terms of this offer have been made to you, or with you, by anyone at WPI. You also hereby represent and warrant that you are not now subject to any agreement which is or would be inconsistent or in conflict with the obligations you will have as an employee of WPI.

If you have any questions concerning this offer, please feel free to contact [Department Head/Program Director].

With best regards,

[Name of Provost]
Senior Vice President and Provost

I hereby accept the position as described in the above letter.

Name: _____ Date: _____

Rationale:

The purpose of this motion is to complete the changes to the Faculty Handbook that clearly document the conditions of employment and security provided to all Professors of Practice. For completeness and transparency, the motion inserts into the Faculty Handbook the exact language of the letter that will be issued to all Professors of Practice when they are appointed or reappointed.

The letter is consistent with the corresponding language pertaining to Professors of Practice in Part Two, Sections 7B and 8B of the Faculty Handbook concerning appointments, reappointments, terminations, and performance reviews, as well as in Part One, Section Two, Subsection V.D. concerning the explicit protections of academic freedom. That Handbook language was approved by the faculty on May 6, 2021.

As a summary, the changes approved on May 6, which are incorporated into the letter of appointment in this motion (with the corresponding place in the letter indicated in parentheses) are as follows:

- In all such appointments, the faculty member’s general responsibilities and workload will be documented in the appointment letter, with changes during an appointment mutually agreed to in writing by the faculty member and the Department Head and/or Program Director. (Item #8)
- Future appointments beyond the first five-year appointment will be for five years rather than three (Item #7)
- Written summaries of annual performance reviews will be shared with the faculty member. (item #9)
- Professors of Practice will no longer be “at will “ employees. Instead, no faculty member will be disciplined, suspended, or terminated during the term of an appointment without just cause, where just cause is defined as (i) misconduct as defined in the Policy on Faculty Conduct, the Policy on Research Conduct, the Sexual Misconduct Policy, or the Title IX Policy (whichever is applicable); or (ii) financial emergency. Any discipline, including suspension or termination, during an appointment may only be imposed pursuant to the process set forth in the relevant policy identified in this paragraph. (Item #12)
- Professors of Practice may grieve non-reappointment through the Faculty Review Committee grievance process. (Item #10)
- As members of the WPI faculty, Professors of Practice explicitly have academic freedom as defined in the Faculty Handbook. They are guaranteed non-retaliation with respect to appointment decisions and other conditions of employment for exercising the full range of academic freedom in all their contributions to the University including participation in its governance. Their right to express their views without reprisal is secured by access to all procedures described in the Faculty Handbook. (item #5)

Given the consistency between the new language in the Faculty Handbook and the new letter to be included in Part Two, Appendix B, the motion contains no additional changes to the new conditions of employment for our Professors of Practice.