

WORCESTER POLYTECHNIC INSTITUTE

March 30, 2023

To: The WPI Faculty
From: Mark Richman
Secretary of the Faculty

The seventh Faculty meeting of the 2022-2023 academic year will be held on **Thursday, March 30, 2023 at 3:15pm in OH 107 and by Zoom at: <https://wpi.zoom.us/j/96410345432>** . Refreshments will be available in OH 107 at 3:00pm.

1. Call to Order M. Richman
 - Approval of the agenda
 - Approval of the consent agenda including minutes of the March 6, 2023 meeting
2. Opening Announcements
3. Committee Report:
Committee on Governance (COG)
 - **Reorganization of and Revisions to the Faculty Handbook:
Focus on “Governance” and “Academic Appointments”** L. Albano
G. Heineman
4. Special Report:
Office of Diversity, Inclusion, and Multicultural Education (ODIME)
 - **The State of Our Black Students** A. Lane
(Dir., ODIME)
5. New Business
6. President’s Report W. Soboyejo
7. Closing Announcements
8. Adjournment

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WORCESTER POLYTECHNIC INSTITUTE
Faculty Meeting Minutes
March 6, 2023

Summary:

1. Call to Order; Approval of the Agenda
2. Opening Announcements
3. Memorial Resolution in honor of Prof. Alex Emanuel
4. Committee Reports: COG, COG, UOAC
5. Special Report: Center for Well-Being
6. Provost's Report
7. Closing Announcements
8. Adjournment

Detail:

1. Call to Order

The sixth Faculty Meeting of the 2022-2023 academic year was called to order at 3:15pm in Olin Hall 107 by **Prof. Richman** (AE). Prof. Richman reminded all those in attendance that the meeting was being recorded for the purpose of taking accurate minutes, only. The meeting agenda was approved as distributed. The consent agenda including, eight motions from CAO, one motion from CGSR, and the minutes of the February 2nd meeting were also approved as distributed.

2. Opening Announcements

Prof. Richman recognized the 12 assistant professors who were recently tenured and promoted to associate professor, the one associate professor who was tenured, the six associate professors who were promoted to full professor, and the one associate teaching professor who was promoted to full teaching professor. (See **Addendum #1** on file with these minutes.) He encouraged all 20 of these colleagues to reflect on all they have accomplished to arrive at this point, to celebrate in a manner appropriate to all that they had achieved, and to be proud of their talents, perseverance and dedication. All of us at WPI are motivated by their success, inspired by their determination, and enhanced by their creativity. Prof. Richman congratulated them and thanked them for having promoted us all.

3. Memorial Resolution

Prof. Brown (ECE) read the following memorial resolution in honor of Prof. Alex Emanuel (ECE):

We, the Faculty of Worcester Polytechnic Institute, note with profound sorrow and a great sense of loss, the passing of our friend and colleague, Alex Emanuel, Professor Emeritus of Electrical and Computer Engineering, who died on January 24, 2023.

Born in Bucharest, Romania in 1937, Alex escaped the Holocaust and in his early twenties fled the Communist regime there to restart his college education in Israel. He received his Bachelor's and Master's degrees in electrical engineering and his Doctor of Science degree in Electrical and Computer Engineering - all from the Technion in Haifa. During that time, he also served as a combat soldier in the Israeli Defense Forces and was a veteran of the Six Day War.

Alex joined WPI's Electrical Engineering Department in 1974 as an established and respected scholar in the field of power system electronics. Alex's early published work on power system harmonics showed even to skeptics that distortions produced by solid-state devices could damage or even destroy electrical equipment. In 1984, Alex founded the IEEE International Conference on Harmonics in Power Systems and held the inaugural event on the WPI campus that year. The conference continues to thrive even today.

For his research, Alex's honors included the Power Systems Instrumentation and Measurement Award from the IEEE Instrumentation and Measurement Society, the R. H. Lee award from the IEEE Industry Applications Society, the John Mungenast International Power Quality Award presented by E Source and Power Quality Assurance magazine, and the IEEE Power and Energy Society Technical Committee Working Group Recognition Award. For the full body of his work, he is recognized as a Life Fellow of the IEEE - a distinction bestowed on just one tenth of one percent of all society members.

In his 44 years at WPI, Alex was known not just for his scholarship, but also for his devotion to his students. He was a passionate classroom teacher and project advisor guided naturally by the ideals of the WPI Plan. He was the first faculty member in WPI's

history to receive WPI's Board of Trustees Awards for Outstanding Teaching, Outstanding Research and Creative Scholarship, and Outstanding Academic Advising. In 2008, he received the Chairman's Exemplary Faculty Prize for the passion he brought to all three dimensions of his work at WPI.

Whether he was helping struggling students or taking new faculty members under his wing, the example Alex set showed us all that it was possible to be a world-class scholar and a world-class teacher, as well as a kind and compassionate human being.

Therefore, let it be resolved that we, the Faculty of Worcester Polytechnic Institute, express our admiration of and eternal gratitude to Alex Emanuel: infinitely curious; generous with his time; and modest about even his greatest achievements. Let it also be resolved that this resolution be inscribed in the permanent records of this Faculty as a memorial to our beloved colleague, and that a copy be delivered to his family.

The resolution passed, and a moment of silence was observed in honor of Prof. Emanuel.

4. Committee Reports

Committee on Governance (COG): Faculty Governance Elections; Committee Structure; Committee Responsibilities; and Election Process

Prof. Albano (CEAE), on behalf of the Committee on Governance, gave an overview of our faculty governance committee structure and election processes. His main purpose was to provide a refresher for the faculty and to encourage broad faculty participation in our ongoing and future committee elections. (See **Addendum #2** on file with these minutes.)

Our standing committees are charged with broad policy and operational issues of continuing faculty concern, and our ad hoc committees are established by the faculty to serve specific purposes over a designated period of time. Issues of faculty concern are studied by the appropriate committees for the formulation of recommendations for faculty consideration and action at our monthly faculty meetings. Each committee has autonomy to set its own agenda.

Our standing committees are: Committee on Governance (COG); Committee on Tenure and Academic Freedom (CTAF); Committee on Appointments and Promotions (COAP); Committee on Financial and Administrative Policy (FAP); Committee on Academic Policy (CAP), with a permanent subcommittee - Undergraduate Outcomes Assessment Committee (UOAC); Committee on Academic Operations (CAO); Committee on Advising and Student Life (CASL); Committee on Graduate Studies and Research (CGSR); and the Faculty Review Committee (FRC). The Committee on Teaching and Research Faculty (CTRF) is an ad hoc committee established for three years beginning in 2022-23. **Prof. Albano** explained that the Secretary of the Faculty coordinates the COG, CTAF, and COAP nomination and election processes, and COG conducts the nomination and election processes for the remaining committees.

Prof. Albano emphasized that our governance system works well because it enjoys the participation of a wide range of faculty members across disciplinary lines who build relationships across schools, departments, programs, and fields – while doing the business and articulating the interests of the faculty and addressing its concerns.

Prof. Calli (RBE) thought it would be helpful to have short individual statements included on the ballots to provide information about each candidate. **Prof. Albano** referred to ongoing discussion in COG about this issue, and explained that the concern is between balancing the desire for more information with the need to respect candidates who wish to serve as part of their civic duty but may feel uncomfortable promoting themselves. There is a reluctance to transform such governance responsibilities as tenure and promotion, for example, into political processes.

Prof. Krueger (SSPS) thought that if people really want to run on a platform or take a stand on what they wish to accomplish while they are on a committee, then they should articulate those positions for the rest of us so we can decide if we buy in or not. In his view, as the size of the faculty has grown, more information would be helpful for informed decision making.

Prof. Boudreau (HUA) asked a rhetorical question for anyone who has ever served on a committee: did they do so because they had a platform with something specific to accomplish or because they wanted to pitch in and help run the place where they work? She votes for people, not because they have a particular point of view, but because

they have a strong work ethic and are reliable. She also expressed a concern about placing an additional barrier to participation.

Prof. Strauss (DIGS) pointed out that it is necessary to access every candidate's webpage to find out who they are and what they do. She does not agree that the process is democratized by not having more information about where people stand. She felt that knowing why someone wants to serve is needed to make evaluations, especially because we don't know each other well. Prof. Strauss thought the same people serve repeatedly because they are well known on campus, and that it wasn't too much to ask for a brief statement from each candidate.

Prof. Weathers (BBT) was skeptical that there would be any benefit to such candidate statements because they would have to be very short in order to entice anyone to read all of them. She would say about herself, as a member of COAP, that she wanted to be fair, and in her view that information wouldn't help at all.

Prof. Billiar (BME) suggested that people should be included on the nominating ballot only if they had first agreed to serve. **Prof. Richman** pointed out that, in effect, that is the way the ballots are constructed for all committees except COG, CTAF, and COAP, while nomination and election processes for COG, CTAF, and COAP are prescribed in the faculty handbook. All such suggestions would be worthwhile to discuss further.

Prof. Spanagel (HUA) saw the nominating process that we use for COG, CTAF, and COAP as a chance to let every member of the community consider the possibility of serving even if it weren't on their immediate list of personal goals. In his view, Prof. Billiar's suggestion would narrow the pool of candidates and remove a powerful part of the process – when faculty members learn and take to heart that they have been nominated by their peers. **Prof. Richman** has found oftentimes that people who might not have answered an unsolicited first call on their own, are later persuaded by the confidence that the community has expressed in them to serve.

Prof. Smith (CS) acknowledged the subtleties in asking or not asking for statements from candidates. She was interested in considering each candidate's expertise and experience rather than in their platform or agenda, and asked what information do we need to make an informed decision. In Prof. Smith's view, it could be helpful to clarify the candidates' unique qualifications for the committee.

Prof. El-Korchi (CEAE) pointed out that with about 90 committee membership slots, we are anxious to include faculty members wishing to serve, and even for the committees that require nominations, with or without a statement it is relatively easy for a motivated faculty member to communicate with their colleagues to be placed on the ballot.

Prof. Krueger (SSPS) explained that we need more information and that democracy is about having good information. It does not take much for people to write a few sentences when they are passionate about something, so providing a brief bio-sketch is not a heavy lift.

Prof. Gericke (CBC) was concerned that minorities are not appropriately represented on COG, and he thought that, excluding this year, there has not been not a lot of turnover in the COG membership. He suggested looking to see if the COG, CTAF, and COAP election procedures tilt the results, and he thought that we should look at departmental diversity because in his view people from large departments are favored over those in smaller departments. **Prof. Richman** referred to a simple analysis done last year by Prof. Heineman that indicated a fairly high degree of turnover on COG. He cautioned against drawing conclusions without the data.

Committee on Governance (COG): Brief Update on Reorganization of and Revisions to the Faculty Handbook

Prof. Richman (AE) gave a brief update on COG's reorganization of the Faculty Handbook. (See **Addendum #3** on file with these minutes.) The emphasis is on making the handbook clearer and more usable while preserving the original substance, and limiting changes to those that conform with current accepted practice that might not be reflected in our current handbook. After months of the sharing of drafts with other governance committees, committee Chairs, the Provost, the President, and University Counsel, while continuing to iterate based on feedback received there are now five chapters in the draft that have been substantially disentangled from one another: Governance; Academic Appointments; Tenure; Promotions; and Faculty Grievance Procedure.

The Governance chapter includes the constitution and the bylaws that can be mapped to the current versions. The Academic Appointments chapter provides in one place the processes by which faculty members are appointed, reviewed, and re-appointed – broken down by the different categories of faculty. The Tenure and Promotion

chapters are parallel in structure; each begins with eligibility sections and continues with criteria and then concludes with a description of the corresponding process. A Faculty Grievance Procedure has been extracted from the current write-up of the Faculty Review Committee.

Prof. Richman indicated that COG would like to get faculty approval of the handbook in May if possible while respecting that it is a complicated project. The initial draft was sent out to the Faculty on Feb. 22 with a version of the current handbook color coded to indicate the chapter of the draft to which text from the current handbook was shifted. Prof. Richman suggested first reading the draft at the highest level as a brand new document to evaluate its organization and usability, and then diving deeper into more detailed concerns about from where particular items had originated. He encouraged all members of the faculty to provide feedback at both levels to any member to COG.

Undergraduate Outcomes Assessment Committee (UOAC): Updates on Student and Advisor Reports on IQP and MQP Learning

Prof. Demetry (MME), on behalf of the Undergraduate Outcomes Assessment Committee, gave a brief history of UOAC since its formation in 2004. She encouraged faculty members who have interest or expertise in assessment or have roles in their departments related to assessment to volunteer to be on the ballot for the committee. (See **Addendum #4** on file with these minutes.)

Prof. Demetry focused her report on assessments of the IQP and MQP. The three main points to be made are that we have campus-wide faculty-approved undergraduate learning, MQP, and IQP learning outcomes; data from student reports on IQP and MQP learning and advising are now accessible; and advisor reports on IQP and MQP learning are being used on eProjects and advisors have a responsibility to complete them.

Prof. Demetry reviewed WPI's undergraduate learning outcomes and how they map to the MQP and the IQP learning outcomes. The strategy to assess learning in IQPs and MQPs is to triangulate the data from student reports, advisor reports, and professional peer reviews of the IQP and MQP.

Prof. Demetry described the format and content of the student reports and how faculty members can access their data and relevant general comparison data on either eProjects or on Tableau. She then described the mechanism now in place and the steps needed for IQP and MQP advisor reports on eProjects. Advisor reports should be submitted for each student immediately after the project is completed, and the reports give a much finer assessment of student learning than a simple grade. Prof. Demetry stressed the importance of advisor reports and pointed out that they were relatively easy to complete.

Prof. Troy (BME) asked if the students have access to their individual outcomes information from their advisor. She thought it would be helpful for them if they did. **Prof. Demetry** explained that the data is aggregated and not available publicly, but she encouraged advisors to give individual feedback to each student.

Prof. Gericke (CBC) asked if feedback to individual students could be sent through eProjects. Both Prof. Demetry and **Mr. DelVecchio** (IT) explained that the only notes that could be sent to students within eProject are related to clarifications about the submission process prior to final submission of the report.

Prof. Weathers (BBT) asked if data for each department were aggregated by the students' majors or by the advisors' departmental affiliations. **Prof. Demetry** explained that the student reports were anchored to the students' majors. The process of data collection for the advisor reports was still in development, but because the UOAC's assessments are of academic programs, it might make sense to anchor those reports to students' majors as well. In any case, it will still be possible for a faculty member to access data for all the student evaluations of projects advised by that faculty member.

Prof. Coburn (BME) clarified that year-by-year data for student project evaluations for a particular advisor were accessible only in aggregated form rather than by individual project. **Prof. Demetry** explained that was to protect the identity of individual students as much as possible.

The discussion was cut off in the interest of time, but **Prof. Richman** encouraged all those with remaining questions to contact Prof. Demetry privately.

5. Special Report

Center for Well-Being (CWB): Promoting a Culture of Care: How the CWB Can Support Faculty and Students

Dir. Fitzpatrick (Director, CWB) presented an overview of the progress made and the services offered by the Center for Well-Being, which opened in January 2023 in the Morgan-Daniels wedge. (See **Addendum #5** on file with these minutes.) The Center for Well-Being uses proactive and preventative strategies to promote the holistic well-being of our students, faculty, and staff. The strategies are designed to build resiliency and develop a flexible notion of “balance.” Jermoh Kamara is the Associate Director and Lindsay Baker is the Office Services Coordinator of the CWB.

The CWB is intended as a hub for students to access well-being resources, as well as to be a safe and relaxing space. Its four main functions are to provide a physical space to relax, programming to promote holistic well-being, academic opportunities to study health and well-being, and research opportunities related to well-being.

Dir. Fitzpatrick explained the differences between the Student Development and Counseling Center (which focuses on mental health, individual interventions, short-term therapy, individual and group therapy, and student support) and the Center for Well-Being (which focuses on holistic well-being, population-level strategies, evidence-based health promotion, and support for employees as well as students).

The Center of Well-Being supports the WPI faculty by serving as a referral source to connect students with support services, offering in-class well-being presentations and wellness workshops and retreats, guiding meditations, and offering health education to recognize student distress.

Finally, Dir. Fitzpatrick reported that 65 percent of the faculty and 82 percent of the staff completed the Kognito At-Risk Mental Health training program, resulting in significant improvements in our community’s ability to recognize and talk to students in distress.

A motion to extend the meeting by ten minutes **passed**.

6. Provost’s Report

Provost Heinricher expressed his admiration for the many professional accomplishments of our newly tenured and promoted colleagues, and he commented on the pleasure he derived from reading their tenure and promotion files during winter break. He described D-term as a time for celebration and pointed to our two upcoming commencements on May 11th and 13th, Faculty Convocation, Project Presentation Day, and the New Voices theater workshop. Provost Heinricher cited an article entitled “Teaching in the Age of Militant Apathy,” by Beth McMurtry (<https://www.chronicle.com/article/teaching-in-an-age-of-militant-apathy>) who, without referring to WPI, asks if our form of immersive education could ever become the norm.

Finally, Provost Heinricher announced that today’s faculty meeting would be his last as Interim Provost, and he thanked everyone for their kindness and support during his time in the position.

7. Closing Announcements

Prof. Richman explained that, to accommodate the faculty while realizing that no solution is perfect, the next faculty meeting has been shifted from March 29th to March 30th to avoid a conflict with the campus-wide Global School Forum. He expressed his appreciation for the faculty’s flexibility under this year’s unusual scheduling circumstances.

8. Adjournment

The meeting was adjourned at 1:06pm.

Respectfully submitted,

Mark Richman
Secretary of the Faculty

Addenda on file with these minutes:

Addendum #1 - Tenured and Promoted Faculty Members 2022 - Minutes March 6 2023

Addendum #2 - COG Presentation on Faculty Governance Elections - Minutes March 6 2023

Addendum #3 - COG Update on Faculty Handbook Revisions - Minutes March 6 2023

Addendum #4 - UOAC Update on MQP and IQP Outcomes Assessment - Minutes March 6 2023

Addendum #5 - Center for Well-Being Overview - Minutes March 6 2023

Appendix
Consent Agenda Motions

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to add CS 4804 Data Visualization

Motion: On behalf of the Department of Computer Science, the Committee on Academic Operations recommends and I move that CS4804 Data Visualization, as described below, be added.

Proposed Course Description:

CS4804 Data Visualization Cat.II.

This course trains students in data visualization, the graphical communication of data and information for presentation, confirmation, and exploration. Students learn the stages of the visualization pipeline, including data characterization, mapping data attributes to graphical attributes, user task abstraction, visual display techniques, tools, paradigms, and perceptual issues. Students evaluate the effectiveness of visualizations for specific data, task, and user types. Students implement visualization algorithms and undertake projects involving the use of commercial and public-domain visualization tools.

Recommended background: CS 2102 or CS 2103, and CS 2223.

Anticipated Instructors: Prof. Lane Harrison

Preferred term: A

Expected enrollment: 55 Course type: Undergraduate

Intended audience: CS students and, given the broad use of visualization across disciplines, students from any major who have the recommended background.

Rationale:

More and more WPI students in computing- and data- focused majors are developing data visualizations as part of their courses and project (IQP/MQP) work, yet there is no undergraduate offering focusing on Data Visualization theory and practice.

The learning goals of CS 4084 include: (1) Critically evaluate and deconstruct data visualizations. With a clear understanding of how they work, visualizations cease to be “pretty pictures” and instead become useful analysis tools that can be sensibly manipulated, redesigned, and combined for specific application domains. (2) Give students practical experience in applying Data Visualization to interesting, non-trivial problem domains.

Resource Needs:

- Associate Professor Lane Harrison has taught several sections of the experimental course CS 480X Data Visualization, as well as the graduate- level Data Visualization course (CS573) and the undergraduate-level BioVisualization (CS4802/BCB4002).
- Faculty Resource / Teaching Load Needs: This course will have minimal impact on faculty teaching resources. Professor Harrison has already taught sections of CS480X as part of his normal teaching rotation.
- Classroom large enough to hold 55 students, including a lectern with standard power and projector connections.
- A classroom suitable for “flipped” in-class activities is helpful but not required.
- TA/SA Support: One TA and 1-2 SAs from the computer science department are needed to

contribute to grading activities, which include open-ended data analysis and visualization projects.

Impact on Distribution Requirements and Other Courses: CS4804 will be considered a standard 4000-level CS course. We anticipate the 20-30 CS undergraduates who take CS4802 BioVisualization will opt for CS4804 Visualization when it is offered.

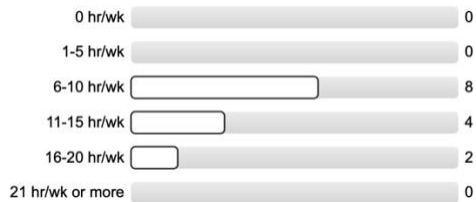
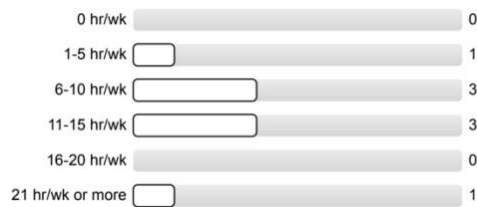
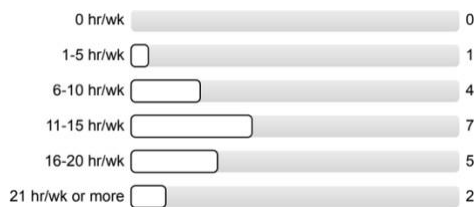
Implementation Date: Implementation date is the '23-'24 academic year.

Appendix: Previous Assessments of Experimental Offerings of the Course:

Enrollments include 34 students in CS480X-20c, and 23 students in CS480X- 21c, and 18 students in CS480X-22c.

| Question | 20c Avg (#Responses) | 21c Avg (#Responses) | 22c Avg (#Responses) |
|--|-------------------------|-------------------------|-------------------------|
| Q1: My overall rating of the quality of this course is | 4.8 (21) | 4.6 (14) | 4.5 (8) |
| Q2: My overall rating of the instructor's teaching is | 4.9 (21) | 4.8 (14) | 4.8 (8) |
| Q7: The amount I learned from the course was | 4.4 (21) | 4.3 (14) | 4.1 (8) |

The following lists estimate hours in 20c, 21c, and 22c, respectively:



Date: March 30, 2023

To: WPI Faculty

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

Re: Motion to change the name of WPE 1219 from Club Sport – SOMA: Capoeira to Club Sport-SOMA (Society of Martial Arts)

Motion: On behalf of the Department of Physical Education, Recreation and Athletics (PERA), the Committee on Academic Operations recommends and I move that the course name of WPE 1219 Club Sport-SOMA:Capoeira be changed to Club Sport-SOMA (Society of Martial Arts).

Description of the Proposed Change:

For Club Sports: we have a general statement within the catalog for these activities as follows:

Club Sports are activities in various sports and wellness that are organized and recognized by SGA as Class II organizations and open to any undergraduate student. Students who are properly registered in advance for the club activity in their interest area (more information regarding Club Sports can be found at wpi.edu/+techsync) and meet the established criteria for participation by the club as well as by PERA department policy, may be eligible for WPE course credit. Practice and/or competition times vary but are generally in the evenings and weekends. Participating students may incur additional fees for equipment, travel, and/or uniforms.

Anticipated Instructor: Various

Preferred Term: year round offering

Expected Enrollment: Unlimited

Course type: Category I, 1/12 credit

Intended audience: Undergraduate students

Rationale:

This name change better reflects the nature of the club (Society of Martial Arts) and will allow the club to explore various areas of SOMA (Capoeira is a specific area of SOMA) as the students and instructors have interest and abilities now and into the future.

Resource Needs: No other resources are needed (name change).

Implementation Date: Academic year 2023-2024.

Contacts: Stephanie Riley-Schafer (sschafer@wpi.edu);

Dana Harmon (dharmon@wpi.edu)

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to remove “Co-ed” from the names of seven WPE courses

Motion: On behalf of the Department of Physical Education, Recreation and Athletics (PERA), the Committee on Academic Operations recommends and I move that the term “Co-ed” be removed from the names of the following seven WPE courses, as listed below.

Description of the Proposed Changes:

New Course Titles:

WPE1018: Volleyball
WPE 1224: Club Sport - Cheerleading
WPE 1226: Club Sport - Water Polo
WPE 1227: Club Sport - Tennis
WPE 1228: Club Sport - Cycling
WPE 1231: Club Sport - Freestyle Wrestling
WPE 1232: Club Sport - Equestrian

Current Course Titles:

WPE1018:Co-ed Volleyball
WPE1224:Club Sport- Cheerleading Co-ed
WPE 1226:Club Sport – Water Polo Co-ed
WPE 1227:Club Sport – Tennis Co-ed
WPE 1228:Club Sport – Cycling Co-ed
WPE 1231:Club Sport – Freestyle Wrestling Co-ed
WPE 1232: Club Sport – Equestrian Co-ed

Course/Catalog Descriptions:

WPE1018 Volleyball: Cat. I (1/12 unit)

Introduction to basic rules and individual/team skill development with practical application through game competition.

For Club Sports listed above, the course description is a general statement as follows: Club Sports are activities in various sports and wellness that are organized and recognized by SGA as Class II organizations and open to any undergraduate student. Students who are properly registered in advance for the club activity in their interest area (more information regarding Club Sports can be found at wpi.edu/+techsync) and meet the established criteria for participation by the club as well as by PERA department policy, may be eligible for WPE course credit. Practice and/or competition times vary but are generally in the evenings and weekends. Participating students may incur additional fees for equipment, travel, and/or uniforms.

WPE 1224: Club Sport - Cheerleading
WPE 1226: Club Sport - Water Polo
WPE 1227: Club Sport - Tennis
WPE 1228: Club Sport - Cycling
WPE 1231: Club Sport - Freestyle Wrestling
WPE 1232: Club Sport - Equestrian

Anticipated Instructor: Various

Preferred term: Various depending on the sport

Expected enrollment: PE course 30; club sports unlimited

Course type: Category I, 1/12 credit

Intended audience: Undergraduate students

Rationale:

Co-ed is an outdated term; removing it will promote a more inclusive environment for all students.

Resource Needs: No resources are needed (name changes only).

Implementation Date: Academic year 2023-2024.

Contacts: Stephanie Riley-Schafer (sschafer@wpi.edu); Dana Harmon (dharmon@wpi.edu)

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to add WPE 1601: Insight Program as a permanent course

Motion: On behalf of the Department of Physical Education, Recreation and Athletics (PERA), the Committee on Academic Operations recommends and I move that WPE 1601: Insight Program, as described below, be added as a permanent course..

Proposed Course Description:

WPE 1601: Insight Program. Cat I (1/12 unit)

The Insight Program provides students with skills, knowledge, and experiences that help them thrive in their transition to WPI. In collaboration with their Insight Team, students create a personalized first year experience that incorporates relationship building with their Insight Advisor as well as programmatic participation in five key areas: Academic Growth, Personal Development, Mental Health and Well Being, Diversity, Equity, and Belonging, and Social Engagement.

Anticipated Instructor: Approximately 60 faculty and staff are recruited each year to participate as Insight Advisors. Insight Advisors receive a stipend that is currently budgeted through the Office of Academic Advising.

Preferred Term: AB semester long course.

Expected Enrollment: The entire first year class.

Course Type: Category I, 1/12 credit

Intended Audience: First year undergraduate students

Rationale:

In the Fall of 2022, Academic Advising revised the annual Insight Program for semester long engagement and to incorporate more Mental Health Task Force recommendations around student wellness, engagement and support as students begin their time at WPI. Awarding WPE credit for this experimental experience provided students with a structured opportunity to connect, practice self-care as well as utilize the many resources available at WPI that will help them be successful. Over 600 first year students completed the necessary requirements to receive WPE credit with student feedback very positive. Additionally, having this course for first years allows them to get started sooner on their WPE graduation requirement as traditionally first years are shut out of PE courses due to priority registration for upper-class students.

Resource Needs: No additional resources are needed. The Office of Academic Advising oversees the recruitment and education of Insight Advisors and works in collaboration with Student Activities to hire and support Community Advisors.

Implementation Date: Fall 2023

Contacts: Stephanie Riley-Schafer (sschafer@wpi.edu); Dana Harmon (dharmon@wpi.edu)

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to add Club Sports WPE 1206, WPE 1234, WPE 1235, and WPE 1236 for academic credit

Motion: On behalf of the Department of Physical Education, Recreation and Athletics (PERA), the Committee on Academic Operations recommends and I move that the following club sport activities be recognized for academic credit:

WPE 1206 Club Sport – Men’s Ice Hockey (renamed; currently listed as Ice Hockey)
WPE 1234 Club Sport – Women’s Basketball (new)
WPE 1235 Club Sport – Women’s Volleyball (new)
WPE 1236 Club Sport – Women’s Ice Hockey (new),

as described below.

Proposed Course Descriptions:

For club sports, we have a general statement within the catalog with the listing of the corresponding activity courses:

Club Sports are activities in various sports and wellness that are organized and recognized by SGA as Class II organizations and open to any undergraduate student. Students who are properly registered in advance for the club activity in their interest area (more information regarding Club Sports can be found at wpi.edu/+techsync) and meet the established criteria for participation by the club as well as by PERA department policy, may be eligible for WPE course credit. Practice and/or competition times vary but are generally in the evenings and weekends. Participating students may incur additional fees for equipment, travel, and/or uniforms.

WPE 1206 Club Sport – Men’s Ice Hockey
WPE 1234 Club Sport – Women’s Basketball
WPE 1235 Club Sport – Women’s Volleyball
WPE 1236 Club Sport – Women’s Ice Hockey

Anticipated Instructor: Various
Preferred term: Various terms depending on the sport
Expected enrollment: Unlimited
Course type: Category I, 1/12 credit
Intended audience: Undergraduate students

Rationale:

WPE 1206 is currently titled Ice Hockey and has been operating as a coed team but due to the health and safety differences between men’s ice hockey and women’s ice hockey, it is important to now have two different clubs/courses. Additionally, women have shown a sustained interest, enrollment and engagement with ice hockey to support their own club/course. This would be another new course for women to receive WPE credit for participation in a club sport.

Women’s Club Basketball and Women’s Club Volleyball are newer club sports and have proven to have sustainable enrollment, engagement and active participation at a high level. Adding these to our course offerings will provide women more opportunities to receive WPE credit for club sport participation in these activities.

Resource Needs: No other resources; funding for club sports is provided by SGA.

Implementation Date: Academic year 2023-2024.

Contacts: Stephanie Riley-Schafer (sschafer@wpi.edu); Dana Harmon (dharmon@wpi.edu)

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to change the number and name of PE 1006 Wellness to WPE 1610: Approaches to Holistic Well-Being

Motion: On behalf of the Department of Physical Education, Recreation and Athletics (PERA), the Committee on Academic Operations recommends and I move that the course number and name of PE 1006 Wellness be changed to WPE 1610 Approaches to Holistic Well-being.

Description of the Proposed Changes:

Current course number, title, and description:

PE 1006: Wellness Cat. I (1/12 Units)

Introductory course designed to acquaint students with knowledge and skills necessary to make choices that foster health and well-being.

Proposed course number, title, and description:

WPE 1610: Approaches to Holistic Well-Being Cat. I (1/12 Units)

Introductory course designed to acquaint students with knowledge and skills necessary to make choices that foster health and well-being.

Anticipated Instructor: Various

Preferred Term: Various

Expected Enrollment: 15-30 students per each course offering

Course Type: Category I, 1/12 credit

Intended Audience: Undergraduate students

Rationale:

The CWB and PERA have worked collaboratively since spring 2022 to help promote and highlight well-being amongst our students including developing various experimental courses the past two academic years. To that end, we would like to establish WPE course listings numbered 1600 to 1699 for current and future offerings from the CWB to help students easily identify these courses that will help fulfill the Wellness and PE requirement. The number and name change of PE 1006 Wellness to WPE 1610 Approaches to Holistic Well-being ensures that this course falls within the new wellness series and highlights the focus on holistic well-being.

Contacts: Paula Fitzpatrick, Director, Center for Well-Being, pfitzpatrick@wpi.edu
Dana Harmon, Director, PERA, dharmon@wpi.edu

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to add WPE 1611: Koru Mindfulness Meditation

Motion: On behalf of the Department of Physical Education, Recreation and Athletics (PERA), the Committee on Academic Operations recommends and I move that WPE 1611: Koru Mindfulness Meditation, as described below, be added.

Proposed Course Description:

WPE 1611 Koru Mindfulness Meditation Cat. I (1/12 unit)

Koru Mindfulness is an evidence-based mindfulness curriculum designed for college aged adults. During this course, you will learn useful, practical tools to help manage your stress and increase self-compassion. Students will practice a variety of meditation skills, engage with the Koru Mobile App, read the companion book, and participate in class discussion.

Anticipated Instructors: Various
Preferred Term: All
Expected Enrollment: 15-20 students per course
Course Type: Category I, 1/12 credit
Intended Audience: Undergraduate students

Rationale:

WPI has been broadening its focus on well-being as evidenced by (a) the inclusion of Student Well-Being, Access, and Affordability as one of the focus areas in the Strategic Plan; (b) the recent creation of the Center for Well-Being; and (c) the renaming of the Wellness and Physical Education requirement. Part of the mission of the Center for Well-Being (CWB) is to collaborate with the Physical Education, Recreation and Athletics Department (PERA) to help expand the number of wellness offerings for students to complete the WPE requirement; this activity was our first collaboration in spring 2022. Koru mindfulness meditation has been a topic offered under PE1099 Healthy Alternatives for the past five terms with tremendous success and interest including fully enrolled/over enrollment. Adding this course will allow Koru mindfulness meditation to have its own unique name and course number to make it easier for students to identify the course as a wellness option.

Resource Needs: The current instructors will teach the course as part of their regular job descriptions. To further expand offerings, stipends for additional wellness instruction are currently being sought as part of the proposed Center for Well-Being budget.

Implementation Date: Academic year 2023-2024.

Contacts: Paula Fitzpatrick, Director, Center for Well-Being, pfitzpatrick@wpi.edu
Dana Harmon, Director, PERA, dharmon@wpi.edu

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to add WPE 1612 Introductory Yoga

Motion: On behalf of the Department of Physical Education, Recreation and Athletics (PERA), the Committee on Academic Operations recommends and I move that WPE 1612 Introductory Yoga, as described below, be added.

Proposed Course Description:

WPE 1612 Introductory Yoga Cat. I (1/12 unit)

This yoga class focuses on connecting the mind, body, and spirit through an awareness of breath. Participating in yoga can improve core strength, flexibility, balance, mindfulness, and relaxation and decrease stress. Those with any level of yoga experience (including first timers) are welcome.

Anticipated Instructors: V a r i o u s
Preferred Term: All
Expected Enrollment: 15
Course Type: Category I, 1/12 credit
Intended Audience: Undergraduate students

Rationale:

Yoga has been an extremely popular offering by PERA in the past (20 years) listed under PE 1099 Healthy Alternatives. With the establishment of the Center for Well-Being, there is support for yoga to be an official course offering provided by the CWB. Having this activity as it's own course will continue the university's expansion into more well-being offerings for students to fulfill their Wellness and Physical Education graduation requirement.

Resource Needs: Stipends for yoga instruction are part of the proposed Center for Well-Being budget.

Implementation Date: Academic year 2023-2024.

Contacts: Paula Fitzpatrick, Director, Center for Well-Being, pfitzpatrick@wpi.edu
Dana Harmon, Director, PERA, dharmon@wpi.edu

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to add WPE 1699 Special Topics in Holistic Well-Being

Motion: On behalf of the Department of Physical Education, Recreation and Athletics (PERA), the Committee on Academic Operations recommends and I move that WPE 1699 Special Topics in Holistic Well-Being, as described below, be added.

Proposed Course Description:

WPE 1699 Special Topics in Holistic Well-Being, Cat. I (1/12 unit)

This course provides an opportunity for students to learn about a special topic in holistic wellbeing. The topics are subject to change on a rotating basis to provide flexibility in the offerings based upon student interest and the latest practice and science of well-being.

Anticipated Instructors: Various
Preferred Term: Rotating
Expected Enrollment: 20 per offering
Course Type: Category I, 1/12 credit
Intended Audience: Undergraduate students

Rationale:

General wellness courses from PERA have been offered through the years as PE 1099: Healthy Alternatives. Adding WPE 1699 Special Topics in Holistic Well-Being as a new course will broaden the opportunities for students to have more current and relevant well-being topics/activities while easily identifying this as an offering provided by the Center for Well-Being.

Resource Needs: Stipends for wellness instruction are part of the proposed Center for Well-Being budget.

Implementation Date: Academic year 2023-2024.

Contacts: Paula Fitzpatrick, Director, Center for Well-Being, pfitzpatrick@wpi.edu
Dana Harmon, Director, PERA, dharmon@wpi.edu

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to remove BME3111 Physiology and Engineering

Motion: On behalf of the Biomedical Engineering Department, the Committee on Academic Operation recommends, and I move that BME3111 Physiology and Engineering be removed.

Description of Course to be Removed:

BME 3111: Physiology and Engineering (Units: 1/3 Category: Category I)

This course provides students with an understanding of mammalian physiology and the engineering aspects of different physiological systems. The course will have both a lecture and laboratory portion. The laboratory portion will provide the students with the ability to analyze and interpret data from living systems, which is a required ABET program criterion for student majoring in Biomedical Engineering. The course will focus on a number of organ systems that may include cardiovascular, respiratory, and renal. Engineering principles that include biomechanical, bioelectrical, and biofluids will be applied to physiological systems.

Recommended Background: A knowledge of Cell Biology (such as BB 2550), biomechanics and biotransport (such as BME 2502), and signal analysis (such as BME 2210) or equivalent.

Rationale:

This course was developed and implemented when the BME department had considerably fewer undergraduate majors (less than 200 to now greater than 500). The BME department is now at a point where this course cannot be offered in its existing form containing an extensive live animal lab. The course contains a live animal surgery component, with a considerable number of rats sacrificed during each offering even with changing from one rat per student to one rat per four students. Due to ethical considerations concerning the use of rats, the BME Advisory Board unanimously advised the BME department to drop this course. The course also requires considerable instructional and lab manager time to deliver at the current level. Finally, the course originally fulfilled the ABET living systems requirement for Bioengineering and Biomedical Engineering Programs. With the recent change to courses the BME department will count towards the living systems requirement (BME 3111, BME 3012, BME 3503, or BME 3813) and the fact that nearly all of our students take one of the other courses (BME 3012, BME 3503, or BME 3813), removal of BME 3111 will have no impact on the student's ability to complete the BME degree requirements.

Given the significant resources required to deliver this course to the BME students and the limited need for this course for students to complete their degree requirements this course will be dropped.

Implementation Date: Implementation date, Academic Year 2025-26

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to add BME3112: Human Physiology for Biomedical Engineers

Motion: On behalf of the Biomedical Engineering Department, the Committee on Academic Operation recommends, and I move that BME3112: Human Physiology for Biomedical Engineers, as described below, be added.

Proposed Course Description:

BME 3112 Human Physiology for Biomedical Engineers 1/3 unit (Cat. I)

This course provides students with an understanding of the structure, function and pathologies of physiological systems such as the cardiovascular, respiratory, and the renal system. The course will teach the mechanisms of organ function from an engineering standpoint that help students understand the principles and techniques employed in designing devices used to treat or correct pathological conditions in these organ systems. Students will gain a better understanding of the interface between physiology and device design used in medical devices such as stents, catheters, pacemakers, ECG machines, and other devices as applicable. Special emphasis will be given to group discussions where students will discuss disease pathologies and review the devices used to treat those conditions. Students will be encouraged to review the device design and suggest improvements for better patient outcomes. Other topics covered in the course include regenerative medicine, biomedical ethics and the concept of “Bioinspired design”. This course will not count towards the “Biomedical Engineering and Engineering” course requirement for Biomedical Engineering majors. Students who have received credit for BME3111 cannot receive credit for BME3112.

Recommended Background: A knowledge of Human biology (such as BB 1025 or equivalent) and Cell Biology (such as BB 2550 or equivalent).

Preferred term: B and C

Expected yearly enrollment: 140 (70 students per offering)

Anticipated Instructor: Prof. Sakthikumar Ambady

Alternative Instructor: Prof. Ray Page

Rationale:

The purpose of this course is to provide Biomedical Engineering students with an essential understanding of physiological systems and medical devices used to treat specific diseases. This course is being developed to fulfill the ABET human physiology experience for “Bioengineering and Biomedical and Similarly Named Engineering Programs”.

Learning outcomes: To develop an understanding of human physiology relevant for biomedical engineers. By the end of the course the student should be able to:

- Understand the structure, function and pathologies of physiological systems.
- Develop an understanding of human physiology and its application to designing medical devices

Implementation Date: 2025-26 academic year

Resource Needs:

- Instructor: Part of the regular teaching load for Prof. Sakthikumar Ambady
- Classroom: Standard classroom with whiteboard or chalkboard and computer/video projection equipment to accommodate up to 70 students
- Laboratory: none required
- Library resources: no staff required
- Information Technology: no special support needed
- Other: TA and PLA support for grading and student consultation

Impact on Distribution Requirements and Other Courses: None; this course will count towards the Human Physiology degree requirement proposed in a joint motion.

Assessment: Assessments include STUDENT FEEDBACK (student course evaluations) and INSTRUCTOR FEEDBACK AND REFLECTIONS as to whether the learning objectives and outcomes were met through student performance on homework assignments and quizzes. The results of student course evaluations will be considered with special emphasis on responses to questions 1, 2, 7, 8, and 19

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to change undergraduate distribution requirements for Biomedical Engineering

Motion: On behalf of the Biomedical Engineering Department, the Committee on Academic Operation recommends, and I move that the undergraduate distribution requirements for Biomedical Engineering be modified as described below.

Description of the Proposed Modifications:

Current Distribution Requirements:

Program Distribution Requirements for the Biomedical Engineering Major

The normal period of residency at WPI is 16 terms. In addition to the WPI requirements applicable to all students (see page 7), a biomedical engineer needs a solid background in mathematics, physical and life sciences. The distribution requirements are satisfied as follows:

| BIOMEDICAL ENGINEERING | MINIMUM UNITS |
|--|----------------------|
| 1. Mathematics (See Note 1) | 6/3 |
| 2. Basic Science (See Note 2) | 6/3 |
| 3. Supplemental Science (See Note 3) | 1/3 |
| 4. Computer Science (Note 4) | 1/3 |
| 5. Biomedical Engineering and Engineering (See Note 5,6,7,8) | 14/3 |
| 6. MQP (See Note 9) | 3/3 |

NOTES

1. Mathematics must include differential and integral calculus, differential equations, and statistics.
2. 2/3 units from each of the following areas: BB, CH and PH. At least 1/3 unit of BB coursework must be 2000+ level.
3. 1/3 unit from BB, CH, CS, MA, PH or FY courses that satisfy BB, CH, CS, MA, or PH.
4. 1/3 unit in basic computer programming (BME 1004, or equivalent).
5. 14/3 units of engineering coursework as specified in the WPI Catalog "Courses Qualifying for Engineering Department Areas" with the following distribution:
 - A. 3/3 units of 2000+ level in engineering.
 - B. 2/3 units of 3000+ level in engineering.
 - C. 9/3 units in Biomedical Engineering which must include the following:
 - i. 4/3 units of BME coursework at the 2000+ level
 - ii. 2/3 units of BME laboratories at the 3000+ level (four 1/6-unit labs)
 - iii. 1/3 unit of BME design (BME 3300 or equivalent)
 - iv. 1/3 unit of BME coursework at the 4000 level
 - v. 1/3 unit of BME coursework at the +4000 level
6. As part of the 14/3 units of engineering coursework, a subset of the courses must fulfill the following requirements:
 - A. For 5A-C, you must take at least one course in each of the BME core competencies (see "Biomedical Engineering Program Chart" for courses that can be used to fulfill the requirements):
 - i. 1/3 unit of biomechanics or biofluids at the 2000+ level
 - ii. 1/3 unit of biomaterials or tissue engineering at the 2000+ level
 - iii. 1/3 unit of biosensors or bioinstrumentation at the 2000+ level
 - iv. 1/3 unit of experimental measurement and data analysis at the 2000+ level
 - B. For 5C, a minimum of 1/6 unit must fulfill the living systems requirement (BME3111, BME 3012, BME 3503, BME 3813 or other courses specified in the Biomedical Engineering Program Chart)
7. No more than 1/3 unit of the 14/3 units of engineering coursework may be independent study (ISU) with a syllabus submitted to the Chair of the BME Undergraduate Curriculum Committee and a final report submitted to the ISU Instructor.
8. MQP credits cannot be used to satisfy the 14/3 units of engineering coursework
9. Must include a minimum of 1/3 unit of Capstone Design Experience. Each Biomedical Engineering student must complete a Capstone Design Experience requirement. The Capstone Design Experience is partially or fully accomplished by completing the Major Qualifying Project which integrates the past coursework and involves significant engineering design. At the time of registration for the MQP, the project advisor will determine whether the MQP will meet the full 1/3 unit of Capstone Design Experience requirement or not. If not, the advisor will identify an additional 1/6 unit of coursework in the area of engineering design (BME 4300 or equivalent) to be taken in order to meet the ABET Capstone Design requirement.

Proposed Distribution Requirements: (with yellow text either added or modified)

Program Distribution Requirements for the Biomedical Engineering Major

The normal period of residency at WPI is 16 terms. In addition to the WPI requirements applicable to all students (see page 7), a biomedical engineer needs a solid background in mathematics, physical and life sciences. The distribution requirements are satisfied as follows:

| BIOMEDICAL ENGINEERING | MINIMUM UNITS |
|---|---------------|
| 1. Mathematics (See Note 1) | 6/3 |
| 2. Basic Science (See Note 2) | 6/3 |
| 3. Supplemental Science (See Note 3) | 1/3 |
| 4. Computer Science (Note 4) | 1/3 |
| 5. Physiology (Note 5) | 1/3 |
| 6. Biomedical Engineering and Engineering (See Note 6,7,8,9,10) | 14/3 |
| 7. MQP (See Note 11) | 3/3 |

NOTES

1. Mathematics must include differential and integral calculus, differential equations, and statistics.
2. 2/3 units from each of the following areas: BB, CH and PH. At least 1/3 unit of BB coursework must be 2000+ level.
3. 1/3 unit from BB, CH, CS, MA, PH or FY courses that satisfy BB, CH, CS, MA, or PH.
4. 1/3 unit in basic computer programming (BME 1004, or equivalent).
5. **1/3 unit of human physiology (BME3111, BB3101, BB3102, BB3515, or equivalent)**
6. 14/3 units of engineering coursework as specified in the WPI Catalog "Courses Qualifying for Engineering Department Areas" with the following distribution:
 - A. 3/3 units of 2000+ level in engineering.
 - B. 2/3 units of 3000+ level in engineering.
 - C. 9/3 units in Biomedical Engineering which must include the following:
 - i. 4/3 units of BME coursework at the 2000+ level
 - ii. 2/3 units of BME laboratories at the 3000+ level (four 1/6-unit labs)
 - iii. 1/3 unit of BME design (BME 3300 or equivalent)
 - iv. 1/3 unit of BME coursework at the 4000 level
 - v. 1/3 unit of BME coursework at the 4000+ level
7. As part of the 14/3 units of engineering coursework, a subset of the courses must fulfill the following requirements:
 - A. For 6A-C, you must take at least one course in each of the BME core competencies (see "Biomedical Engineering Program Chart" for courses that can be used to fulfill the requirements):
 - i. 1/3 unit of biomechanics or biofluids at the 2000+ level
 - ii. 1/3 unit of biomaterials or tissue engineering at the 2000+ level
 - iii. 1/3 unit of biosensors or bioinstrumentation at the 2000+ level
 - iv. 1/3 unit of experimental measurement and data analysis at the 2000+ level
 - B. For 6C, a minimum of 1/6 unit must fulfill the living systems requirement (BME3111, BME 3012, BME 3503, BME 3813 or other courses specified in the Biomedical Engineering Program Chart)
8. No more than 1/3 unit of the 14/3 units of engineering coursework may be independent study (ISU) with a syllabus submitted to the Chair of the BME Undergraduate Curriculum Committee and a final report submitted to the ISU Instructor.
9. MQP credits cannot be used to satisfy the 14/3 units of engineering coursework
10. A maximum of 1/3 unit at the 500 level can count towards the Biomedical Engineering and Engineering requirement
11. Must include a minimum of 1/3 unit of Capstone Design Experience. Each Biomedical Engineering student must complete a Capstone Design Experience requirement. The Capstone Design Experience is partially or fully accomplished by completing the Major Qualifying Project which integrates the past coursework and involves significant engineering design. At the time of registration for the MQP, the project advisor will determine whether the MQP will meet the full 1/3 unit of Capstone Design Experience requirement or not. If not, the advisor will identify an additional 1/6 unit of coursework in the area of engineering design (BME 4300 or equivalent) to be taken in order to meet the ABET Capstone Design requirement.

Rationale:

Addition of Note 5: Biomedical Engineering curriculum must include experience in human physiology to maintain ABET accreditation. With the recent change to the BME living systems requirement and resource limitations necessitating the BME department will discontinue offering BME3111 (Physiology & Engineering), BME students will not fulfill the required human physiology experience for ABET accreditation. Students can fulfill the human physiology requirement by completing BME3111 (towards the physiology requirement), BB3101, BB3102, BB3515, or equivalent course as determined by the BME Undergraduate Curriculum Committee.

When BME3112 is offered in Academic Year 2025-26, BME3112 will count towards the human physiology requirement and the courses in Note 5 will be updated accordingly.

The human physiology requirement will replace one of the 2/3 unit free electives within the 45/3 unit requirement. While students at WPI are required to take a minimum of 45/3 units of coursework, they have 48/3 units of time at WPI, effectively providing 3/3 units of additional unused coursework time.

The previous Notes 5 – 10 are now Notes 6 – 11 because of the above changes.

Implementation Date: Academic Year 2023-24

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to change the courses qualifying for distribution requirements for Biomedical Engineering

Motion: On behalf of the Biomedical Engineering Department, the Committee on Academic Operation recommends, and I move that the courses qualifying for Engineering Distribution Requirements for Biomedical Engineering be modified, as described below.

Description of the Proposed Modifications:

Current Courses Qualifying for Engineering Distribution Requirements:

BME: All courses designated "BME" (except BME 1001, BME 1004, BME 3110, BME 532, BME 560, BME 562, BME 564, and BME 593; BME 595 requires departmental approval) and CE, CHE, ECE, RBE, and ME courses at the 2000-level or above (except RBE 3100).

Proposed Courses Qualifying for Engineering Distribution Requirements: (with yellow text added):

BME: All courses designated "BME" (except BME 1001, BME 1004, BME 3110, BME3112, BME 532, BME 560, BME 562, BME 564, and BME 593; BME 595 requires departmental approval) and CE, CHE, ECE, RBE, and ME courses at the 2000-level or above (except RBE 3100).

Rationale:

The Biomedical Engineering Department faculty agree that the content in BME3112 does not meet the ABET criteria of an engineering course in the BME Department.

Implementation Date: Implementation date, Academic Year 2025-26

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to remove HI 1312: Introduction to American Social History

Motion: On behalf of the Department of Humanities and Arts, the Committee on Academic Operation recommends, and I move that *HI 1312: Introduction to American Social History* be removed.

Description of Course to be Removed:

HI 1312. Introduction to American Social History. Cat. I

An introduction to the historical study of American society. It addresses two questions: What is social history? and how do social historians work?

Rationale:

This course will be replaced by new course HI 1333: Introduction to American Histories of Protest and Power.

Impact on Distribution Requirements and Other Courses: This course should be deleted from the description for the HUA Major with American Studies Concentration.

What term is this course typically offered and is it Cat. I or Cat. II? A and B Terms, Cat. I

Note if there are any changes to resource requirements. No changes to resource requirements

Implementation Date: Academic Year 2023-24.

Contact: Joseph Cullon, Associate Head for the Humanities, HUA Dept., jcullon@wpi.edu

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to change HI 3312: Topics in American Social History from Cat. I to Cat. II

Motion: On behalf of the Department of Humanities and Arts, the Committee on Academic Operations recommends, and I move that HI 3312: Topics in American Social History be changed from Cat. I to Cat. II and to be next offered in AY 2023-2024 and then in alternating years thereafter.

Description of Course:

HI 3312: Topics in American Social History. Cat I.

A seminar course on analysis of selected aspects of social organization in American history, with emphasis on the composition and changing societal character of various groups over time, and their relationship to larger social, economic, and political developments. Typical topics include: communities, families, minorities, and women. Suggested background: Some college-level American history.

Recommended background: Some college-level American history.

Anticipated Instructors: Prof. Lindsay Davis and Prof. Cullon

Rationale:

Moving this course from Cat. I to Cat. II will allow the flexibility to balance the teaching obligations of the history faculty in HUA.

Implementation Date: D-Term 2024 and alternating years thereafter.

Resource Needs: No new resources are required. The enrollment cap is 20 and the course type remains Lecture/Discussion.

Impact on Distribution Requirements and Other Courses: Since many other courses exist for students to pursue course work in American history, this will have no discernable impact on distribution requirements and HUA programs of study.

Contact: Joseph Cullon, Associate Head for the Humanities, HUA Dept., jcullon@wpi.edu

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to add EN 3257: Topics in African American Literature

Motion: On behalf of the Department of Humanities and Arts, the Committee on Academic Operations recommends, and I move that EN 3257: Topics in African American Literature, as described below, be added.

Proposed Course Description:

EN 3257: Topics in African American Literature. Cat II.

This course offers a deep exploration of the vibrancy of Black American life and thought through the lens of African American literature. Students will actively and critically read selected African American texts considering the historical contexts in which they were produced as well as analyzing their formal elements. While the course will focus on Black American experience in the United States, it will do so in dialogue with the larger diasporic Black experience. The topics will rotate regularly, alternating between close examination of different authors, genres, themes, or movements while preparing students for the HUA capstone experience. Examples of authors are Langston Hughes, Richard Wright, James Baldwin, Zora Neale Hurston, Alice Walker, Toni Morrison, Lorraine Hansberry and August Wilson. Examples of genres are slave narratives, sermons, autobiographies, dramas, spirituals, blues, and drama. Examples of themes are race and the law, freedom struggles, and intersections between race and class, gender, and sexuality. Examples of movements are the Black Arts Movement, the Civil Rights Movement, and the Black Lives Matter Movement. Faculty offering the course will indicate which authors, genres or themes they intend to present on the HUA website well before student signups. This course may be repeated for different topics.

Recommended Background: None.

Anticipated Instructors: Prof. Fontenot, Prof. Boudreau, and Prof. Masiki

Rationale:

For many years, HUA offered only a single Cat. II introductory course (EN 1257) specifically addressing the African American experience as a piece of a broader African diaspora. This started to change in AY 2021-2022, when a historian of the Black experience in the Americas joined the HUA faculty. Now with the addition of another faculty member studying African American literature in AY 2022-2023 and the current search for a professor of music with a specialty in the music of the African diaspora, the Department is poised to offer a coherent block of introductory, intermediate, and advanced seminar courses in Africana Studies across HUA disciplines (AR, EN, HI, MU, and WR) for students to fulfill the HUA Requirement with a depth field in Africana Studies. These courses can also connect with other university offerings, especially in Social Science and Policy Studies (SSPS), to form the core of an emerging minor program in Africana Studies. This advanced seminar in African American literature meets significant needs in building a suite of Africana Studies courses. Most crucially, it provides student with an opportunity to continue the study of African American Literature after taking the long-standing introduction to the field (EN 1257).

The intended audience for this course includes:

- Students wishing to engage with the history, literature, music, and culture of the Africana diaspora
- Students seeking to complete the HUA Requirement with a thematic depth field in Africana Studies

- Students working in the area of Literature and Creative Writing

Finally, this course and the Africana Studies initiative of which it is a piece support WPI's values of respect, community, and inclusion and moves WPI forward toward meeting the goals of "Lead With Purpose: WPI's Strategic Plan, 2021-2026." By creating spaces in our curriculum that critically engage various methods and approaches in Africana Studies, we will allow Black, Indigenous, and People of Color (BIPOC) students to see their cultures and experiences substantively and clearly reflected in course titles and descriptions, perhaps "enhanc[ing] the outcome and experience of minoritized and underrepresented student populations at WPI." Creating academic spaces that can cross over with co-curricular activities of BIPOC students and Office of Diversity, Inclusion, and Multicultural Education will also allow us to not only recruit but to meaningfully support "faculty and staff that increase the diversity of WPI and evolve structures and systems to ensure an inclusive campus community."

Implementation Date: D Term 2024 with a second offering in 2024-2025.

Resource Needs: No new resources will be required.

Intended audience and Impact on Distribution Requirements and other Courses: The course is designed to appeal to students seeking to take a depth or breadth course toward the HUA Requirement, as well as a course toward minors in English and Creative Writing.

Impact on Distribution Requirements and Other Courses: This course will provide additional options for students completing the Humanities and Arts Requirement and the Humanities and Arts Major.

Contact: Joseph Cullon, Associate Head for the Humanities, HUA Dept., jcullon@wpi.edu

Date: March 30, 2023
To: WPI Faculty
From: Committee on Academic Operations (Prof. Srinivasan, Chair)
Re: Motion to modify the distribution requirements for the IMGD Technology major

Motion: On behalf of the Interactive Media & Game Development Program, the Committee on Academic Operation recommends, and I move that the distribution requirements for the Interactive Media & Game Development Technology major be modified as described below.

Description of the Proposed Modifications:

Current Distribution Requirements:

Program Distribution Requirements for the Interactive Media & Game Development Technology (B.S.) Distribution Requirements for the IMGD Technology Major

Computer Science Notes

1. Only CS 1101, CS 1102 and CS courses at the 2000-level or higher can be counted towards the Computer Science requirements.
2. Only one of CS 1101 and CS 1102 may count towards the Computer Science requirement.
3. Only one of CS 2301 and CS 2303 may count towards the Computer Science requirements.
4. CS 2119 and CS 3043 cannot be chosen to satisfy the Computer Science course requirements

Proposed Distribution Requirements:

Program Distribution Requirements for the Interactive Media & Game Development Technology (B.S.) Distribution Requirements for the IMGD Technology Major

(with modified **text in red**.)

Computer Science Notes

1. Only **CS 1004**, CS 1101, CS 1102 and CS courses at the 2000-level or higher can be counted towards the Computer Science requirements.
2. Only one of **CS 1004**, CS 1101 and CS 1102 may count towards the Computer Science requirement.
3. Only one of CS 2301 and CS 2303 may count towards the Computer Science requirements.
4. **Only one of CS 2119 and CS 2102 may count towards the Computer Science requirements.**
5. **CS 2119 and** CS 3043 cannot be chosen to satisfy the Computer Science course requirements

Rationale:

IMGD Technology majors must choose 11/3 units from any courses with a CS prefix, subject to the restrictions listed above. CS 1004 Introduction to Programming for non-majors and CS 2119 Application Building with Object-Oriented Concepts are programming courses designed for non-CS majors, specifically. These courses are of value to IMGD Technology majors and complements the existing IMGD and CS offerings that are already required as part of their distribution requirements.

Implementation Date: AY 2023-2024