WORCESTER POLYTECHNIC INSTITUTE
May 10, 2022

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

The ninth faculty meeting of the 2021-2022 academic year will be held on **Tuesday**, **May 10, 2022** at 11am via Zoom (join after 10:45am at https://wpi.zoom.us/j/96760833087).

1. Call to Order and Opening Announcements   M. Richman

   - Approval of the Agenda
   - Consideration of the Minutes from April 14, 2022
   - Consideration of the Consent Agenda
   - Opening Announcements

2. Committee Business:

   Committee on Academic Operations (CAO)   L. Titova
   - May 2022 Undergraduate Student Graduation List

   Committee on Graduate Studies and Research (CGSR)   D. Korkin
   - May 2022 Graduate Student Graduation List

   Committee on Appointments and Promotions (COAP)   G. Iannacchione
   Committee on Governance (COG)   T. El-Korchi
   - Motion to add criteria for promotions in the Professor of Teaching track
   - Motion to add procedures for promotion to (full) Professor of Teaching
   - Motion to modify eligibility and time in rank guidelines for promotion of tenured and tenure-track faculty

   Committee on Financial and Administrative Policy (FAP)   J. Fehribach
   Committee on Governance (COG)   T. El-Korchi
   Fringe Benefits Committee (FBC)   M. Radzicki
                                                                                   J. Sarkis

   - Motion to endorse a resolution to restore full retirement benefits

   Committee on Information Technology Policy (CITP)   R. Cowlagi
   - Motion to establish the Learning Management System and Video Lecture Support Policy

   Committee on Graduate Studies and Research (CGSR)   M. Demetriou
   - Motion to allow double-counting in the BS/MS program within five years of completing the BS degree at WPI

3. Provost's Report   W. Soboyejo

4. New Business

5. Closing Announcements

6. Adjournment

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WORCESTER POLYTECHNIC INSTITUTE
Faculty Meeting Minutes
April 14, 2022

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2. Opening Announcements
3. Committee Business: CAP and CAO; CTAF and COG; COAP and COG
4. Special Reports: First Annual COG Report of Faculty Populations – and Faculty Categories
5. President's Report
6. Provost's Report
7. Closing Announcements
8. Adjournment

Detail:
1. <u>Call to Order</u>
The eighth faculty meeting of the 2021-2022 academic year was called to order at 3:15pm via Zoom by **Prof. Richman** (AE). Prof. Richman reminded all those in attendance that the meeting was being recorded for the purpose of accurate minutes. The agenda for the meeting was approved as amended to add opening announcements, and the minutes of the March 17, 2022 meeting were approved as distributed. The consent agenda was approved as distributed. Prof. Richman thanked all those in the academic departments and in faculty governance who did the hard work to prepare the motions in today's consent agenda.

2. <u>Opening Announcements</u>
Prof. Richman (AE) invited all community members to attend the Faculty Honors Convocation on Friday, April 29th at 11am with a lunch reception following the ceremony. In addition, with the COG, CTAF, and COAP elections now completed, Prof. Richman encouraged faculty members to respond to the campus-wide email solicitations asking for volunteers to have their names appear on the ballots for the remaining faculty governance committees. In all there are about 20 vacancies and the ballots will include at least two candidates for each vacancy.

Prof. Strauss (DIGS) conveyed an invitation to the WPI faculty from the WPI student body to sign an open letter (at http://divestwpi.wixsite.com/divest-now) to the Trustees requesting that WPI divest its endowment from fossil fuel investments. Prof. Strauss also indicated that the faculty will soon be bringing forward its own parallel divestiture request for discussion. (See **Addendum #1** on file with these minutes.)

3. <u>Committee Business</u>
CAP/CAO
Prof. Pavlov (SSPS), on behalf of the Committee on Academic Policy (CAP) and the Committee on Academic Operations (CAO), moved that the WPI "Physical Education Graduation Requirement" be renamed the "Wellness and Physical Education Graduation Requirement." Prof. Pavlov explained that physical education has evolved to incorporate more than sports and now encompasses wellness defined as holistic health with physical, mental, emotional, spiritual, social, and environmental dimensions. The motion recognizes that we have already implicitly expanded the requirement in this way and will open opportunities for further such expansion. The name change will not affect current distribution requirements. (See **Addendum #2** on file with these minutes.)

Dir. Harmon (Dir., PERA) added that the motion is made in response to concerns about wellness that have been prominent this academic year and is consistent with the recommendations of the Mental Health and Wellbeing Task Force. It will emphasize the ongoing expansion of the requirement and the importance we place on our students' overall wellness.

Prof. Richman added that there is an additional related motion in the consent agenda that would make a corresponding change to the prefix of all courses (from PE to WPE) that count toward the newly named requirement.

The motion **passed**.

CTAF/COG

Prof. Mathews (BBT), on behalf of the Committee on Tenure and Academic Freedom (CTAF) and the Committee on Governance (COG), moved that the probationary periods for tenure-track faculty members who started on the tenure track at WPI in AY21/22 be extended by one year due to hardships associated with the COVID-19 pandemic, and that each faculty member in this group be given the choice to opt out of the extension by providing written notice to the Provost's Office by no later than May 1, twenty-five months before the date that tenure materials would be scheduled to be submitted on their newly extended tenure clock.

Prof. Mathews explained that currently probationary faculty members with start dates of AY20/21 or earlier have had an extra year added to their probationary periods, which they can turn down in writing to the provost's office with a deadline of 25 months before their tenure material would be due on the new tenure clock (i.e. 13 months before the materials would be due using the probationary periods). The current motion is to extend the same provision to faculty members who joined the tenure track at WPI in AY21/22. This includes new hires and faculty members who joined the teaching track to tenure this year. The motion recognizes that significant disruptions to professional activities have continued throughout this academic year. (See **Addendum #3** on file with the minutes.)

Prof. Neamtu (CS) was in favor of the motion and asked how the opt-out deadline applied to faculty members put on the teaching path to tenure with tenure deliberation years originally set at AY23/24. Prof. Matthews explained that they would need to opt out of the extension by May 1 of this year.

Prof. Ryder (BBT) clarified that the motions provide only a one-year extension even for faculty members who have been at WPI through the two-year pandemic.

Prof. Richman reminded those in attendance that the Zoom chat is an informal mechanism for questions that will not necessarily be answered by the speaker and will not be recorded in the minutes. He encouraged people to raise their hands to be recognized formally for their questions.

Prof. Fischer (RBE) asked for clarification about the opt-out deadline for people who had already gotten probationary period extensions for other reasons not related to COVID. **Prof. Matthews** explained that if the unrelated extension were taken early enough in the probationary period, then the opt-out deadline would be delayed by a year, but if the extension were taken in the last year of the probationary period, then it would be too late to allow for the 25-month opt-out (of the COVID extension) notification.

The motion **passed**.

COAP/COG

Prof. Iannacchionne (PH), on behalf of the Committee on Appointments and Promotions (COAP) and the Committee on Governance (COG), moved that the Faculty Handbook (Part Two: Policies and Operating Procedures; Section 10: Promotion Procedures and Criteria for Non-Tenure-Track Faculty; Subsection B. Promotion to Associate Teaching Professor) be modified to add language requiring the submission of professional associate letters in applications for promotion to Associate Teaching Professor as described in the meeting materials. Prof. Iannacchione explained that the omission of this explicit requirement was not intentional, and this correction makes it clear that professional associate letters are required. This correction also will align this expectation with other promotion criteria and procedures in the Faculty Handbook. (See **Addendum #4** on file with these minutes.)

Prof. Martin (MA) asked if the number of required letters was specified anywhere. **Prof. Iannacchione** clarified that six letters are required for the other promotion procedures and criteria, and the same number would be expected in this case.

Prof. Eggleston (CEAE) asked if we should be using the term non-tenure-track faculty in the motion or if this should be changed to teaching and research track faculty. **Prof. Iannacchione** indicated that the motion uses the terminology used in the Faculty Handbook.

This motion **passed**.

COAP/COG

Prof. Iannacchionne (PH), on behalf of the Committee on Appointments and Promotions (COAP) and the Committee on Governance (COG), explained that COAP and COG are eager to receive community feedback on three additional draft motions that were distributed with the meeting materials, and he described the urgency in bringing acceptable forms of the motions to the May faculty meeting so that COAP can deal with promotion cases in the affected track during the coming academic year.

Prof. Iannacchionne indicated that the first motion establishes the criteria for promotion to Associate Professor of Teaching and the criteria for promotion to full Professor of Teaching. The primary goal is to establish criteria that align both with the tenure criteria used for the Professor of Teaching track and with the promotion procedures used for the dual-mission Professor track. The criteria for promotion to Associate Professor of Teaching are the same as the tenure criteria for that track, and this formulation aligns with the expectation that the promotion from Assistant to Associate Professor of Teaching would occur simultaneously with the granting of tenure. The criteria for promotion from Associate to full Professor of Teaching are based on continued growth in teaching practice, professional growth and currency, and service, with an expectation of continued positive external impact and a significant record of service. (See **Addendum #4** on file with these minutes.)

Prof. Roberts (BBT) asked whether there were anyone eligible for these types of promotions this coming year. Prof. Iannacchione thought that, based on those on the track now, no one could be eligible for both tenure and promotion and was not sure if there were anyone eligible to pursue promotion to full Professor of Teaching.   He emphasized, however, that right now there are no criteria, no procedures, and no time-in-rank criteria stated in the Faculty Handbook, and COAP and COG were determined to fill this gap this year.

Prof. Smith (IMGD) asked for clarification about existing time-in-rank requirements for promotion to full professor. **Prof. Iannacchione** pointed out that we have a nominal five-year time-in-rank for professors in the dual-mission role, but no language for the professor of teaching. Time-in-rank issues are addressed in the third of the three motions to be discussed.

Prof. Xiao (RBE) asked about the criteria for promotion for teaching faculty who are not on the Professor of Teaching track. **Prof. Iannacchione** explained that criteria for promotion of Teaching Professors are fully articulated in the Faculty Handbook and are unaffected by these motions. He emphasized that the promotion criteria for Teaching Professors are totally different that the promotion criteria for Professors of Teaching.

Prof. Towner (BUS) asked if it is possible to apply for promotion to full professor without the expectation of obtaining tenure first. **Prof. Iannacchione** indicated that the expectation is that a faculty member would have tenure before applying for promotion to full professor, and this would apply to Teaching Professors who were switched to the tenure track as Professors of Teaching with their tenure clocks set in the new appointment letter.

Prof. Neamtu (CS) observed that if the criteria for promotion to Associate Professor of Teaching is the same as the tenure criteria, then applicants for that promotion and for tenure would be submitting the same dossier to both COAP for promotion and CTAF for tenure. **Prof. Iannacchione** explained that it was for this very reason that the

expectation is that promotion to associate Professor of Teaching and the granting of tenure would both be handled by CTAF at the same time, just as it is in the dual mission professor track.

Prof. Ryder (BBT) asked what the major differences were between the criteria for promotion for the Professors of Teaching and for Teaching Professors. **Prof. Iannacchione** pointed out that one prominent difference is the expectation of service for Professors of Teaching but not for Teaching Professors. A second prominent difference is that even for the promotion from Assistant to Associate Professors of Teaching, there is some expectation of external impact, whereas for Teaching professors this is not the case.

Prof. Richman suggested that the discussion move to the remaining two motions, and he encouraged anyone with suggestions to send them to Prof. Iannacchione or any member of COAP or COG in time to be incorporated in the April 26 two-week notice to be sent for the May 10th faculty meeting.

Prof. Iannacchione described the second draft motion, which establishes procedures for promotion to full Professor of Teaching in parallel to those for promotion to dual-mission full Professor. The motion describes the dossier to be submitted and the standards against which it will be judged, and it ensures that both are aligned with the corresponding promotion criteria while also allowing for a broad range of evidence of quality, commitment, and impact. The dossier must be amenable to the peer review of professional associates and external referees.

Prof. Iannacchione explained that the third motion establishes eligibility and time-in-rank guidelines for promotion of tenured and tenure-track faculty members. Rather than adding new sections, the motion involves a modification of an existing section of Part Two of Faculty Handbook (to be renumbered as from Section 1.D.2 to Section 1.D.3) to ensure that the same language applies to both the Professor and the Professor of Teaching tracks. The goal is to establish minimum time-in-rank expectations (i.e. nominally five years with a minimum of three years at WPI), allow for exceptional achievement to be documented in the nominator's letter, and have credit toward time-in-rank be negotiated at the time of appointment and specified in the letter of appointment. (See **Addendum #4** on file with these minutes.)

Prof. Richman and **Prof. Iannaccchione** emphasized that the importance of presenting the three draft motions was to solicit further feedback by email and other means beyond the limited time for discussion at today's faculty meeting.

4. Special Reports
AY 2021-22 COG Report of Faculty Populations AY2021-22 (and Faculty Categories)
Prof. Richman (AE), on behalf of the Committee on Governance, described the newly re-written Appendix D of Part One of the Faculty Handbook (The Roles and Balance of the Faculty in Carrying Out WPI's Mission). The Appendix describes the following institutional goals with respect to the full-time faculty: the faculty will consist of 70 percent tenured and tenure-track dual mission faculty and 30 percent teaching mission faculty; by fall 2023, 40 percent of the teaching mission faculty would be tenured or on the tenure-track and 60 percent would be off the tenure-track. According to the Appendix, each year COG is to give a report to the faculty on the various faculty populations. (See **Addendum #5** on file with these minutes.)

The tenured and tenure-track faculty (TTTF) consist of the dual mission Assistant, Associate, and Full Professors, as well as the Assistant, Associate, and Full Professors of Teaching. The secure teaching faculty (STF) are those on 1-3-3-5+ year contracts hired with the expectation of continuing academic responsibilities. The short-term (or critical need) teaching faculty are those on one-year contracts to fill temporary teaching needs. The important distinction between the STF and the short-term (critical need) teaching faculty is their contract status rather than their titles (which fall into multiple categories of contract status). Finally, research faculty are paid on grant funding and are our Assistant, Associate, and full Research Professors; and others with teaching and research responsibilities are our visiting faculty from other institutions and our post-doctoral scholars.

The "teaching mission faculty" at WPI referred to in Appendix D consists of our Assistant, Associate, and Full Professors of Teaching (part of our TTTF), our secured teaching faculty (STF), and our short-term (critical need) teaching faculty. Currently we have very few short-term critical need teaching faculty.

For academic year 2021-2022, there are 270 dual mission TTT faculty: 102 in Engineering; 142 in Arts and Sciences; 20 in Business; and 6 in the Global School. There are 15 Professors of Teaching: 3 in Engineering; 8 in Arts and Sciences; 0 in Business; and 4 in the Global School. There are 120 secured teaching faculty: 32 in Engineering; 64 in Arts and Sciences; 5 in Business; and 19 in the Global School. So there are 285 (270 plus 15) TTTF, 135 (15 plus 120) teaching mission faculty, and 405 (270 plus 135) total full-time faculty.

Relative to our institutional goals, 66.7 percent (270/405) of our faculty is TTT dual mission, so it would take an additional 45 TTT dual mission faculty (315/450) to get to our goal of 70 percent. Furthermore, our plan to place 3 cohorts of 15 teaching faculty on the teaching track to tenure by fall 2023 would mean that 33.3 percent (45/135) of our teaching faculty were tenured or tenure-track by then, whereas we would need to place 54 (54/135) on the tenure track to reach our goal of 40 percent.

Professor Smith (IMGD) asked how adjunct faculty are considered in this ratio on faculty. **Prof Richman** explained that the faculty referred to in Appendix D (and upon which the stated goals are based) are the full-time faculty; therefore, for the purposes of the report required in the Appendix, the adjunct faculty members are not included. However, there are currently 177 adjuncts, which amounts to 59 full-time equivalent (FTE) faculty members. We have the data on how they are distributed across schools, departments, and programs.

Prof. LePage (CEAE) asked if there is an institutional goal for adjunct faculty in proportion to full time faculty. **Prof Richman** indicated that because the recent changes involved the full-time faculty only, the institutional goals were established to address the concerns raised at the time about how our newly constituted full-time faculty would be distributed among itself. The issue of how the full-time faculty should compare to the adjunct faculty is a very real concern but it was not addressed at the time in part because our adjunct faculty has delivered about 10 percent of our academic credits and that number has remained fairly constant over time. Prof. Richman agreed that the proportion of full-time to part-time faculty is a matter we can take up formally, as well.

Prof. Sanbonmatsu (HUA) would have liked to see the data concerning the adjunct faculty. **Prof. Richman** appreciated the point and indicated that the detailed data concerning adjuncts broken down by schools, departments, and programs was included on slides that he did not show due to time constraints but will be posted with the full presentation on the faculty governance website.

5. President's Report
President Leshin thanked all our faculty members and especially colleagues in Physical Education, Recreation, and Athletics (PERA) for addressing the well-being of our students by broadening the physical education graduation requirement. The President is also aware that CASL and other faculty governance committees are continuing to work methodically on the general issue of student wellbeing.

President Leshin also announced that V.P. Morton, who has been a great partner over the past 11 years, will be transitioning out of the university and will return to supporting private sector K-12 and higher education. Her position will be eliminated. MarComm and Enrollment Management will now report directly to the interim President. Strategic Initiatives and University Analytics will move into the CFO's organization. Kyle Siegel will become AVP and Chief of Staff and continue working in the President's office and with the Board. She also announced that on April 8, the Board voted to appoint Bill Fitzgerald ('83) as the new Chair of the Board, effective immediately. President Leshin was optimistic that we would all enjoy working with him in the future.

President Leshin added that due to a conflict in May, today's meeting will be her last faculty meeting as WPI President. President Leshin expressed her admiration and respect for the WPI faculty in action, especially for its work

with our students. Finally, President Leshin asked everyone to do all they can to support Provost Soboyejo in his role as interim president, and she hoped to have opportunities to thank many of the faculty in person.

6. Provost's Report

Provost Soboyejo, on behalf of the faculty, expressed appreciation to President Leshin for all she has done for WPI. For him, it has been a pleasure to work with President Leshin and he looked forward to celebrating her accomplishments as she moves to her next position.

Provost Soboyejo was amazed to watch the faculty in action today. He thanked Prof. Richman and Prof. Iannicchione, in particular, for bringing forward the motions related to promotions and for thinking so deeply about the implications of the changes that have been made within our faculty. Provost Soboyejo was touched by Dir. Harmon's work with Prof. Pavlov and Prof. Titova on the adjustments made to treat our students' wellbeing in a more holistic manner. He was optimistic that such an approach will permit us to overcome our challenges as we move past the current academic year.

Provost Soboyejo then explained that the community had spoken clearly about the best short-term choice for WPI during the transition, and as a result he introduced Dean Heinricher as the Interim Provost for the next academic year. **Prof. Heinricher** (UGS) thanked the faculty for getting through a tough time and reminded the community that we are very good at what we do. He quoted a student who described WPI as special because it is very competitive place, but where we compete with important problems and not with each other.

Provost Soboyejo also announced that Prof. Gericke will serve as Interim Dean of Undergraduate Studies. **Prof. Gericke** (CBC) thanked the Provost for trusting him with the position. He expressed his admiration for Dean Heinricher's work as Dean of Undergraduate Studies for over a decade, and he promised to do his best to keep the trains moving.

Prof. Richman congratulated Dean Heinricher, Prof. Gericke, and President Leshin on their new positions.

7. Closing Announcements

Dean Snoddy encouraged all faculty members to order regalia through the campus bookstore. Graduate student commencement is on Thursday, May 12th and undergraduate commencement is on Saturday, May 14th. Dean Snoddy also announced that GradFest - on Friday, April 22 (on Project Presentation Day) from 6 to 9pm in the Odeum - will be an opportunity for students, staff, and faculty to socialize as the term ends.

8. Adjournment

Prof. Richman thanked everyone who contributed to the many moving parts of today's meeting, and he anticipated that the May 10 faculty meeting will be packed with related and additional items of business. Prof. Richman observed that despite difficult circumstances and extreme time demands, faculty governance continues to function well and is headed towards a productive conclusion to the academic year.

The meeting was adjourned at 4:48pm.

Respectfully submitted,

Mark W. Richman
Secretary of the Faculty

Addenda on file with these minutes:
Addendum #1 - Sign WPI Student Divestment Letter - Minutes 4-14-22
Addendum #2 - CAP-CAO Motion for Wellness and Physical Education - Minutes 4-14-22
Addendum #3 - CTAF Motion to Extend Probationary Periods - Minutes 4-14-22
Addendum #4 - COAP Motions for Promotion Criteria and Procedures - Minutes 4-14-22
Addendum #5 - COG Annual Report on Faculty Populations AY21-22 - Minutes 4-14-22

Date: May 10, 2022
To: WPI Faculty
From: Committee on Academic Operations (Prof. Titova, Chair)
Re: Motion to approve the May 2022 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 14, 2022. 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 14, 2022 graduation.

Bachelor of Arts Degree

Environmental and Sustainability Studies:
 Tess Flaherty
 Sabine Garcia
 Hailey Hurrell
   Minor: Psychology
 Caroline Jaeger
 Julia Jankowski

Interactive Media and Game Development:
 Owen Aguirre
 Charles Baldwin
   Minor: Computer Science
 Hannah Belan
  Visual Art Concentration
 Stanley Cliche
   Minor: Mathematics
 Terry Deng
  Technical Art Concentration
 Jasmine Duerk
 Daniel Enriquez
  Writing Concentration
 John Frazia
  Design Concentration
 Hannah Goodsell
   Minor: Psychology
 Caroline Grella
   Minor: Computer Science
 Anne Higgins
  Design Concentration
 Morgan Jones

 Janelle Knight
 Kaamil Lokhandwala
 Sophia Marcus
 Hannah Miller
  Visual Art Concentration
 Oliver Rayner
  Design Concentration
 Katrina Rifenburgh
 Joy Tartaglia
   Visual Art Concentration

Bachelor of Science Degree

Actuarial Mathematics:
 Jane Cohen
   Minor: Data Science
 Lexi Ferrini
 Alison Lambert
 Kieran Lee
   Minor: Business
 Angela Quackenbos
   Minor: Data Science
 Donovan Robillard

Aerospace Engineering:
 Akul Agarwal
   Minor: Mechanical Engineering
 Matthew Barrett
 Kirsten Bowers
   Minor: Electrical and Computer Engineering
 Antonio Calcagni

Aerospace Engineering cont.:
 Leila Card
 Christian Chadwick
 Olivia Chiasson
 Abigail Collins
 Dakota Cross
 Adrianne Curtis
 Christopher Davenport
 Ethan Davis
 Phillip Durgin
 Benjamin Englis
 Jake Franklin
   Minor: Mechanical Engineering
 Jeremy Gagnon
 Paul Golias
 Anthony Gosselin
 Mason Handy
 Alex Harrigan
 Nicolas Hesel
   Minor: Computer Science
 Alex Hodge
 Tyler Hunt
 David Ibrahimi
 Jordan Jonas
 Veronika Karshina
 John Kerwin
 Meenakshi Kodali
 Theresa Larson
 Johnathan Lazo
 Tyler Lizotte
 Joshua Martin
 Daniel Mattison
 Harrison Mazur
 John McCarthy
 Connor Miholovich
 Vincent Mitala
 Troy Otter
 Yuvraj Pathania
 Samuel Pitkowsky
 Bethany Ramsbottom
 Thomas Rau
 Martin Runquist
   Minor: Materials
 Daniel Santamaria-Hopkins
 Justin Schoepke

 John Sirois
   Minor: Business
 Harrison Smith
 Zachary Sotland
 Guilherme Sperotto
 Jonathan Stern
   Minor: Chemistry
 Drake Tierney
 David Tomer
   Minor: Manufacturing Engineering
 David Van Sickle
 Andrew Ventura Molina
 Connor Walsh
   Minor: Astrophysics
 Samuel Waring
 Sidney Williams
   Minor: Business
 Bridget Wirtz

Applied Physics:
 Mingsi Hu
 Michael Laemmle
 Samuel Skinner
   Minor: Chemistry
   Minor: Nanoscience

Architectural Engineering:
 Katherine Bishop
   Minor: Environmental and Sustainability
   Studies
 Kimberly Coudrey
 Madison Di Vico
 Hannah Hirsch
   Minor: Media Arts
 Darius Luo
   Minor: Sustainability Engineering
 Kathleen Morrison
 Dominick Timpanaro
 James Valentine
 Lara Varjabedian
   Minor: Sustainability Engineering
 Erin Venard
   Minor: Sustainability Engineering
 Hannah Whitney
   Minor: English

Biochemistry:
Sean Amberger
Jacob Arciszewski
Sean Burns
Burnon Chen
Meredith Gauthier
Lauren Guerrero Negron
  Minor: Global Public Health
Liza Hote
  Minor: Global Public Health
Rachel Maurice
Connor Norton
  Minor: Biology
Jacqueline Novak
Silvana Reid
Kathryn Rodriguez
Marina Spenciner
Sara Stillings
MacKenzie Sullivan
Kiran Tremblay
Jordan Wynn
  Minor: Spanish

Bioinformatics and Computational Biology:
Emily Baker
Eric Bormann
Jules Cazaubiel
Maia Grant
Samantha Mora
Justin Moy
Emily Musser
Adrian Orszulak
Aidan Pecorale
Julia Tatone
Nicholas Tourtillott
Stokley Voltmer

Biology and Biotechnology:
Sydney Atkinson
  Minor: Environmental and Sustainability
  Studies
Kylie Belanger
  Minor: Global Public Health

Eric Bormann
  Minor: Bioinformatics and Computational
  Biology
Megan Brady
Erin Bryan
  Minor: Environmental and Sustainability
  Studies
  Minor: History
Emily Cimino
  Minor: Global Public Health
Emily Deberadinis
  Minor: Global Public Health
Sarah Doherty
Kathleen Duffy
Tess Flaherty
Dawn Frederick
Sabine Garcia
Brigid Griffin
Emma Hartzel
Marine Herman
Allison Hershoff
Sarah Jones
  Minor: Business
Kathryn Kenney
Megi Kola
Jack Kruse
Van Le
Kelly Makechnie
Samantha Marcil
  Minor: Psychology
Jagruthi Maroju
Catherine Masiello
  Minor: Biochemistry
Daniel Mbusa
Rachel McBrine
Adelaide McFarland
  Minor: Spanish
Julia Milks
  Minor: Global Public Health
Zane Molins
Emily Musser
Cristian Nunez
Abigail O'connor
Adrian Orszulak
Rianna Ray
  Minor: International and Global Studies

Biology and Biotechnology cont.:
Tracy Rhode
Kathryn Rodriguez
Amanda Schnapp
  Minor: Chemistry
Ryan Smith
  Minor: Bioinformatics and Computational
  Biology
Michaela Sorrento
Alexandra Wall
  Minor: Biochemistry
Kailana Wang
  Minor: Bioinformatics and Computational
  Biology
Rebecca Whittier

Biomedical Engineering:
Bishoy Abdelmalek
Emily Adams
  Minor: Chemistry
Anthony Algieri
Lindsay Ambrosino
Emma Bailey
Lexi Baker
Ashley Baldwin
Nelson Barnett
Ranya Basma
  Minor: Global Public Health
Cecilia Berniac
Aman Bhatti
Hannah Borges
  Minor: Mechanical Engineering
Blake Bragaw
 Biomechanical Concentration
Andrew Brooks
  Minor: Mechanical Engineering
Hannah Brooks
  Minor: Psychology
Elizabeth Brousseau
Jennifer Brownell
Mia Buccowich
Henry Buda
Hannah Burke
Emma Burkhardt
  Minor: Mechanical Engineering

Victoria Carreiro
  Minor: Mechanical Engineering
Matthew Casserly
  Minor: Spanish
Camila Cavalcanti Bezerra M Carvalho
Lynsa Chau
  Minor: Bioinformatics and Computational
  Biology
Colton Chung
Isabelle Claude
Julianna Cognetta
Rosina Comatas
James Copeland
Lily Cordner
  Minor: Bioinformatics and Computational
  Biology
Natasha Cruz-Calderon
Mathiew Daniels-Diehl
Winona Daw
Maria Decelles
Neeraj Dodda
Cosette Domkofski
  Minor: Psychology
Nathan Draudt
  Minor: Computer Science
Meredith Eddy
  Minor: Chemistry
Chongyuan Feng
 Biomechanical Concentration
Sawyer Fenlon
Angela Ferro
  Minor: Mechanical Engineering
Lilarose Forsyth
Emma Fountain
Alexandra Gannon
  Minor: Materials
Katrina Garrow
Mickaela Gunnison
Ali Guthrie
Dina Habboosh
  Minor: Electrical and Computer
  Engineering
Evan Hallberg
Layal Hamze
Benjamin Hanemann
Sammy Hankaoui

Biomedical Engineering cont.:

Lauren Hardy
 Biomechanical Concentration
Edward Hay
Sydney Hertel
Samuel Hopkins
Rui Hou
Nathan Hyde
Morgan Jones
Alex Kalmar-Gonzalo
Minh Anh Kieu
 Minor: Bioinformatics and Computational
 Biology
Owen Lally
Samuel Losh
Sarah MacDonald
 Minor: Mechanical Engineering
Dana Maloy
Marisa Maltais
Daniel Marsh
Lydia Masse
Hailey McCasland
Brianna McCuaig
 Minor: Biology
Keri McLaughlin
Jeffrey Mei
 Minor: Mechanical Engineering
Lucas Micheels
Rositsa Mihaleva
 Minor: Spanish
 Minor: Mechanical Engineering
Gillian Miller
Emily Minch
 Minor: Electrical and Computer
Engineering
 Minor: Mechanical Engineering
Karina Mirochnik
Brianna Mulloy
 Minor: Spanish
Lonna Neidig
Jessica Netto
 Minor: Business
Alexis Nichols
Claire Nicolas
Alex Nieto

Sophia Noel
 Minor: Mechanical Engineering
Monika Nowak
 Minor: Industrial Engineering
Katherine O'leary
 Biomechanical Concentration
Julia Ormerod
 Minor: Electrical and Computer
 Engineering
Eliana Palumbo
Taylor Paradis
Brooklynn Paris
Savannah Parker
 Minor: Biology
Olivia Petropulos
Isaac Petruzziello
Emily Philbrook
Sarah Piela
Kevin Piskorowski
 Minor: Physics
Miranda Pitta
Amber Poulin
Melanie Presseau
Sophia Puch
Shreya Puttagunta
Nicole Racca
Sierra Raskevitz
Samantha Raskind
Michael Reilly
Desiree Rivas
Rose Romanos
 Minor: Mechanical Engineering
Katherine Rosivach
Katelin Rudnik
 Minor: Mechanical Engineering
Emily Sansoucy
 Minor: Materials
Timothy Santos-Heiman
Corinne Saucier
 Minor: Business
Miriam Sayegh
Azka Siddiq
 Minor: Chemistry
Zachary Siders
Allison Smith
Camren Smith

Biomedical Engineering cont.:
  Meagan Smith
  Chris Son
  Kirsten Stevens
  Siri Sundaraneedi
  Stephanie Tam
  Kiran Tremblay
  Isabella Troop
  Vanessa VanDeMark
  Mia Velletri
    Minor: Chemistry
  Juan Villamizar
  Nicholas Weiland
  Adrienne Whitney
  Blake Wofford
    Minor: Chemistry
  Mazen Yatim

Business:
  Ahmed Alhejaili
  Jessica Evans
    Business Analytics Concentration
  Callan Moriarty
    General Business Concentration
  Andrew Nicklas
    Financial Technology Concentration
    Minor: Data Science
  Malvina Piziak
  Theodore Solomonides
    Custom Concentration for Business Major

Chemical Engineering:
  Julia Awad
    Minor: Drama/Theatre
  Michael Berwanger
  Ryan Bettencourt
  Kavim Bhatnagar
  Michael Biando
  Robert Blythe
  Julia Bryant
  Makayla Carmichael
  Evy Case
   Environmental Concentration
  Gabriella Cerbo
  Andrew Charlebois
  Sophie Chase

Jason Chen
Isabelle Chi
Gabriela Chong
Avery Cirincione-Lynch
Evan Costa
Liam Cox
Brian Desjardins
Katherine Doucette
  Minor: Drama/Theatre
Jillian Doyle
Andrew Dupuis
Thomas Dziechciarz
  Minor: Sustainability Engineering
Sam Elaskalani
Patrick Flaherty
Osasumwen Fredrick-Ilekhuoba
 Energy Concentration
Ceana Fuller
 Environmental Concentration
Sydney Gagne
 Biological Concentration
Jay Gandhi
 Biological Concentration
Achilles Gatsonis
Olivia Gedgaudas
Reshawn George
Emily Gonzales
Abigail Goyette
Hailey Hanscom
Alexandra Harrison
 Biological Concentration
  Minor: Bioinformatics and Computational
  Biology
Rayna Harter
 Environmental Concentration
Kimberly Hazeltine
Katarina Himmelberger
  Minor: Environmental and Sustainability
  Studies
Sydney Horton
Luca Ialongo
  Minor: Mechanical Engineering
  Minor: Drama/Theatre
Eduardo Italiani
Jonathan Jironvil
Alex Kelleher

Chemical Engineering cont.:

Timothy Kendall
  Minor: Business
H La Vallee
Christopher LaFortune
John Laukaitis
  Energy Concentration
Meng Lian
Caran Kate Manalo
James Marlow
Leslie Mateo
Gaby Mazzoni
Kim Mori
  Biological Concentration
Emma Mungovan
  Minor: Business
Karla Navarro
  Materials Concentration
Brendan Olexa
Andrew Panneton
Emma Paxton
  Biological Concentration
Taylor Petell
  Biochemical Concentration
Marina Petrillo
Elia Petros
Isabella Piccione
Rylee Pinsonneault
  Minor: Business
Eileen Piombino
  Materials Concentration
Alex Poll
Charles Pottow
Antonio Ramirez
Lauren Revene
  Biological Concentration
Jeremy Rhines
Grace Richards
Patrick Roche
Meghan Sailer
Jared Santerre
Bruno Schardong
Muntasir Shahabuddin
  Energy Concentration
Jillian Shimansky
  Minor: Business

Ashli Silvera
  Minor: Spanish
Adam Strohm
Kat Tarantino
Emily Toala
Danielle Upton
  Minor: Business
Julia Visconti
Colin Wandell
Alyssa Whitley
  Biological Concentration
Hunter Wieckowski
Matthew Willis
Andrew Yatsuhashi
  Minor: Biochemistry
Ciara Young

Chemistry:

Ahmed Alhejaili
Marissa Allegrezza
Michael Berwanger
Angel Fernandez Sorondo
Isabella Ferrari Carrubba
Michelle Frasch
Jonathan Jironvil
Isabelle Rhodes
Margaret Richins
Ariadna Rivas-Souchet
  Minor: Data Science
Jonathan Stern
Hana Tabit
Sebastian Tommasi
  Minor: Business

Civil Engineering:

Evan Andrzejewski
Braden Ballard
Benjamin Beliveau
  Environmental Concentration
Stephanie Bishop
Tyler Cierpich
Peter Conroy
Charles Considine
Joseph Coutcher
William Crist
Lisa Cristiano

Civil Engineering cont.:

Caroline Dalton
Bryan Davidson
Jeffrey Desjardins
Daniel Divecchia
Morgan Emery
  Minor: Arabic Studies
Fernand Gay
Peyton Graham
Drew Grenier
  Environmental Concentration
Justin Hines
Edie Hudson
Colby Jensen
  Minor: Business
Rhys Christian Kalama
  Minor: Business
Heather Lohrey
Joseph MacDonald
Skylah Mahon-Dixey
Zoe Mahoney
Isabelle Mellor
Rose Noggle
Logan O'Donnell
John Parenteau
Matthew Penkala
Julie Pham
Kiersten Potts
  Environmental Concentration
Igor Reis
Andrew Salvatori
Alexandra Scariati
Ava Schlesinger
  Minor: Business
Ethan Schock
Jonathan Scribner
Maximilian Storch
  Minor: Business
Joshua Thomas
Madelyn Uryase
  Minor: Fire Protection Engineering
Avery Vreeland
Marshall Watts
Ian Weston
Kade Woolverton
Joe-Yee Yip

Computer Science:

Matthew Aguiar
  Minor: Interactive Media and Game
  Development
Isabel Alvarado Blanco Uribe
Veronica Andrews
Ryan Astor
  Minor: Data Science
Brennan Aubuchon
  Minor: Interactive Media and Game
  Development
Emily Austin
Jack Ayvazian
Benjamin Babalola
Jake Backer
  Cyber Security Concentration
Nathan Bargman
Sean Barry
Eli Benevedes
Ryan Birchfield
Luke Bodwell
Tyler Bouwens
  Minor: Data Science
Collin Broderick
  Minor: Data Science
Eva Bruklich
Alexis Caira
  Minor: Data Science
Theodore Campbell
Noah Capucilli-Shatan
Edward Carlson
John Carroll
  Minor: Chinese Studies
Maddison Caten
Marcus Chalmers
Elaine Chen
Felix Chen
Yang Chen
Errica Cheng
  Minor: Management Information Systems
Dyllan Cole
Nicole Conill
  Minor: Law and Technology
  Cyber Security Concentration
Devin Coughlin
  Minor: Chinese Studies

Computer Science cont.:

William Cross
Adrian Curless
  Minor: Electrical and Computer
  Engineering
Noah Darveau
Jason Davis
Lia Davis
Syreneti Delacruz
Lorenzo DeSimone
Jasmine Duerk
Praise Eteng
Tian Yu Fan
Caleb Farwell
  Minor: Mechanical Engineering
Andrew Fernandes
Lucas Fernandes
  Minor: Data Science
Tyler Ferrara
Kaitlyn Fichtner
Mark Forte
Brett Foster
  Minor: Electrical and Computer
  Engineering
Alexa Freglette
 Cyber Security Concentration
Maylee Gagnon
Bryan Gass
Luke Gebler
Carley Gilmore
Liam Jyn Godin
Paloma Gonzalez Galvez
Samantha Gould
  Minor: Robotics Engineering
Suryansh Goyal
Peyton Grant
Victoria Grasso
Christopher Guerrette
Madeline Halley
Lauren Hatfield
Alan Healy
  Minor: Mathematics
Cory Helmuth
Karen Hou
Patrick Houlihan
Matthew Hurlbut-Coke

Neville Ingram
Sean Jan
  Minor: Data Science
Matthew Johannesen
Nicholas Jurovich
Ido Katz
  Minor: Business
Mason Kaye
Madyson Kelly
Filip Kernan
Alexander Kinley
Nathaniel Klingensmith
  Minor: Interactive Media and Game
  Development
Aaron Krueger
Aditya Kumar
Jadon Laforest
  Minor: Interactive Media and Game
  Development
Michael Lai
 Cyber Security Concentration
Morgan Langstaff
Truman Larson
David Leandres
Morgan Lee
Alek Lewis
Bryan Lima
  Minor: Interactive Media and Game
  Development
Katie Lin
  Minor: Media Arts
Evan Llewellyn
  Minor: Data Science
Christopher Lobo
Kaamil Lokhandwala
Sarah Lombardi
Tyler Looney
Lorenzo Lopez
 Cyber Security Concentration
Winnie Ly
Yang Lyu
Emily Mahoney
Pradnya Mahurkar
  Minor: Business
Matthew Malone
Robear Mankaryous

Computer Science cont.:

Sarah McCarthy
Timothy McCarthy
  Minor: Electrical and Computer
  Engineering
Joshua McKeen
Connor McLaughlin
Veronica Melican
Kyle Mikolajczyk
Victoria Mirecki
Justin Mitchell
Sean Morrissey
Sullivan Mulhern
 Cyber Security Concentration
Reilly Norum
  Minor: Data Science
Patrick O'Mullan
Mairead O'neill
Matthew Olson
Noah Olson
Gwyneth Ormes
Amy Orozco
Michael Osei
Hezi Owuor
Ashwin Pai
Trevor Paley
Aidan Pecorale
Johvanni Perez
  Minor: Data Science
Madeline Perry
  Minor: Interactive Media and Game
  Development
Hoang Phan Pham
Edward Philippo
  Minor: Data Science
Jean-Luc Pierre-Louis
Jared Poulos
Benjamin Robinson
Jonathan Rosenbaum
Michael Rossetti
  Minor: Business
Garett Ruping
Maria Del Carmen Sacristan-Benjet
Ilyas Salhi
Joseph Scheufele

Eric Schmid
  Minor: Business
Ashley Schuliger
  Minor: Data Science
Erich Schwarzrock
Matthew Selva
Andrew Shanaj
Alexander Simoneau
Cyber Security Concentration
Lindberg Simpson
Kate Sincaglia
  Minor: Spanish
Avery Smith
 Cyber Security Concentration
Zhecheng Song
Matthew Spofford
Adrianna Staszewska
Benjamin Staw
Ryan Stebe
  Minor: Interactive Media and Game
  Development
Daniel Stusalitus
Saniya Syeda
Gus Teran
Oliver Thode
Jarius Thomas
Shannon Truong
Conrad Tulig
Nicholas Vachon
Carlos Velasquez
  Minor: Interactive Media and Game
  Development
Christopher Vieira
  Minor: Robotics Engineering
Matthew Vindigni
Yonghua Wang
Lauren Wasserman
Haowen Wei
Yoni Weiner
Michael Wenning
Ryan Wheeler
  Minor: Mathematics
Andrew Whitney
Roman Wicky Van Doyer
Adraesteia Wong
  Minor: German

Computer Science cont.:
  Matthew Worzala
  Jingyu Xie
  William Yang
  Ziqian Zeng
    Minor: Data Science
  Ke Zhao
  Zaiyang Zhong

Data Science:
  Ardavasd Ardhaldjian
  Jacob Bissonette
  Maddison Caten
  Kyle Costello
  Olajumoke Jackson
  Nicholas Jurovich
  Eva Labbe
  Kaustubh Vivek Pandit
    Minor: Business
    Minor: International and Global Studies
  Hoang Phan Pham
  Brian Phillips
  Philip Rago
  Bailey Schmidt
    Minor: Computer Science
  Kate Sincaglia
  Adrianna Staszewska
  River Yan
    Minor: Computer Science
  Xizhao Zhang

Economic Science:
  Rosalyn Bates
    Minor: Data Science

Electrical and Computer Engineering:
  Dianjenis Abreu
    Minor: Latin American and Caribbean
    Studies
  Andreas Ake Akesson
  Nisreen Aljumaili
  Lindsay Ambrosino
  Kenneth Armijo
  Michael Bedard
  Emily Bubencik
  Evan Buckley

  Arden Carling
    Minor: Computer Science
  Peter Catalino
  Jenna Charron
    Minor: Business
  Manjusha Chava
  Alexander Corey
  Xavier Curney
  Hailey Delphia
  Jonathan Ferreira
  Maya Flores
  Brett Foster
  Emma Fountain
  Anthony Galgano
  Joshua Geyster
  Peyton Grant
  Benjamin Guerriero
    Minor: Robotics Engineering
  Jorgo Gushi
    Minor: Mechanical Engineering
  Isabel Herrero Estrada
    Minor: Management Information Systems
    Minor: Data Science
  Dorian Isidore
  Muhaimin Islam
  Noelle Johnson
  Madeline Kasznay
  Ryan Keegan
  Shamiha Khan
  Alexander Kobsa
    Minor: Astrophysics
  Aditya Kumar
  Deep Kumar
  Benjamin Larkin
  Tyler Larson
  Zach Le
  Giahuy Lenguyen
    Minor: Data Science
  Timothy Lewis
  Wenting Li
    Minor: Interactive Media and Game
    Development
  Anthony Macrina
  Kevin Mbogo
  Martin McCormack

Electrical and Computer Engineering cont.:
  Victor Mercola
    Minor: Music
  Justin Mitchell
  Alex Mondro
    Minor: Computer Science
  Joseph Murray
  Samuel Ng
  Tom Nurse
  Vibhuti Pathare
    Minor: Chemistry
  Matthew Plympton
  Devon Poisson
  Kevin Ramos
  Joshua Reeder
  Thomas Riviere
  Evan Sauter
  Dawson Scheid
  David Schwartz
    Minor: Physics
  Anna Shi
  Nadia Singh
  Joshua Smith
  Colin Stevens
  Donovan Tames
    Minor: Mechanical Engineering
  Jack Tatirosian
  Erin Thibeault
  Alexander Thurley
  Ryan Tougas
  Tramy Truong
  Jonathan Valsamis
  Haowen Wei
  Maxwell Westreich
    Minor: Business
  Herbie Wolff
  Liam Ariel Wolozny Gomez Robelo
  Logan Young
  Gwyneth Zelmanow
  Shangjin Zhong

Environmental Engineering:
  Benjamin Beliveau
  Natalie Bennett
  Kaelyn Foss

  Kimberly Frary
  Maxwell Lepage
  Caran Kate Manalo
  Meghan McCudden
  Evelyn Mortimer
  Madison Rutherford
    Minor: Materials
  Lillian Taylor
  Delaney Tedtsen
    Minor: Gender, Sexuality and Women's
    Studies
  Rachael Zmich
    Minor: Sustainability Engineering

Humanities and Arts:
  Nathan Bargman
  Talya Feldman
  Braden Foley
  Mason Kaye
    Drama/Theatre Concentration
  Adraesteia Wong

Industrial Engineering:
  Nada Abojaradeh
  Enzo Borges
  Clarissa Casilla Luzardo
    Minor: Business
  Anne Davis
  Nickalas Dinatale
  Lauren Dishong
    Minor: Business
  McKenna Finken
  Grace Gately
  Hannah Gelman
  Erin Gonzalez
    Minor: Mathematics
  Kaelyn Hicks
  Zoe Januszewski
  Caitlin Kuzma
    Minor: Data Science
  Michael Levene
    Minor: Business
  Jon Merchan
  Abigail Perlee
  Margaret Reiter
  Marissa Thomas

Industrial Engineering cont.:
  Mason Watts-Rich
    Minor: Computer Science
  Nicole Whipkey
    Minor: Mathematics

Interactive Media and Game Development - Technology:
  Emily Austin
  Duncan Bertetti
  Luke Bodwell
  Noah Darveau
  Mariko Endo
    Minor: Management Information Systems
    Minor: Computer Science
  Andrew Fernandes
  Nicolas Fish
    Minor: Computer Science
  James Flynn
  Paloma Gonzalez Galvez
  Matthew Johannesen
  Matthew Selva
  Zhecheng Song
  Tyler Sprowl
  Joy Tartaglia
  William White
  Jingyu Xie

Interdisciplinary:
  Isabelle Cordova
    Minor: Psychology
  Brittany Henriques
  Rose McGovern
  Rose Noggle
  Seneca Warren

International and Global Studies:
  Emily Baker
  Kiersten Potts

Management:
  Eli Ruffa
    Minor: International Studies

Management Engineering:
  Joshua Alasso
    Operations Management Concentration
  Ethan Bae
    Operations Management Concentration
  Frank D'Alessio
    Operations Management Concentration
  Austin Franklin
    Custom Concentration for MGE Major
  Kaija Gisolfi-Mccready
    Biomedical Engineering Concentration
  Mackenzie Goldschlager
    Custom Concentration for MGE Major
  Tyreese James
    Mechanical Engineering Concentration
  Bridgette Paredes
    Operations Management Concentration
  Allison Spratt
    Operations Management Concentration

Management Information Systems:
  Augustine Asumadu
  Angel Beltre
  Cady Diehl
    Minor: Computer Science
  Lucas Fernandes
  Zachary Harris
  Natalie Mohn
  Alexander Young

Mathematical Sciences:
  William Aaron
  Kwabena Adwetewa-Badu
  Ronan Banavige
  Em Beeler
    Minor: Computer Science
  Kayla Fabry
    Minor: Data Science
  Anna Fitzpatrick
  Molly Folino
  Neville Ingram
  Bhanuj Jain
  Sean Jan
  Agathe Lasnier
    Minor: Philosophy and Religion
  Samuel Leonard

Mathematical Sciences cont.:
Matthew Levine
Claire Lungwitz
  Minor: Computer Science
Yang Lyu
Grace Malabanti
  Minor: Arabic Studies
Victoria Mirecki
Gwyneth Ormes
Larson Ost
  Minor: Physics
Emma Pollock
  Minor: Data Science
Georgina Quinn
Ally Salvino
  Minor: Computer Science
Joseph Scheufele
Ashley Schuliger
Avery Smith
Juliette Spitaels
  Minor: Data Science
Laura Staugler
Tom Strow
Marissa Thomas
Daniil Volkov
Yonghua Wang
Yonglong Zhan

Mechanical Engineering:
Jacqueline Aaron
Jesulona Akinyele
Nisreen Aljumaili
Ben Amado
Razan Andigani
Aaron Andrade
Ezekiel Andreassen
Anthony Arace
  Mechanical Design Concentration
Michael Arbore
  Minor: Manufacturing Engineering
Blake Audibert
Jessica Babcock
Samantha Barakian
  Minor: Manufacturing Engineering
Katelyn Barron
Raymond Beazley

Amber Beliveau
Samuel Bello
  Minor: Business
  Minor: Manufacturing Engineering
Liam Benjamin
John Benoit
Marika Bogdanovich
  Minor: Materials
Sydney Borrello
Patrick Bowles
  Minor: Materials
Meghan Brady
  Minor: Materials
Blake Bragaw
Eli Breitbart Frischling
  Minor: Mathematics
Grete Bressner
Elliana Budri
  Biomechanical Concentration
Lucas Buermeyer
Katherine Burkes
Adele Burton
Joseph Calcasola
  Minor: Data Science
Charles Carlo
Raymond Carter
Emilia Casagrande
Anna Catlett
Gabriella Cervone
Zachary Chapins
Mostafa Chehadeh
  Minor: Manufacturing Engineering
Steven Chelak
Ruchita Choksey
Kathleen Cochran
Dylan Connors
  Minor: Business
Michael Cuddy
  Mechanical Design Concentration
Matteo Cugno
  Minor: Business
Conor Daly
  Minor: Sustainability Engineering
Siddhant Damle
  Minor: Aerospace Engineering
Cheyenne Day

Mechanical Engineering cont.:

Igor De Moraes
  Minor: Manufacturing Engineering
Sonya DeLorie
Sarah DeMaio
 Mechanical Design Concentration
Ella Deane
Mary Decelles
Lanna Delaney
Brian Desjardins
Braeden Desmonts
  Minor: Aerospace Engineering
Elizabeth DiRuzza
Daniel Dietrich
  Minor: Chinese Studies
Natalie Dionne
 Minor: Media Arts
Mechanical Design Concentration
Augustus Doggett
 Mechanical Design Concentration
Claire Dollins
  Minor: Data Science
Derrick Doncaster
 Biomechanical Concentration
William Donovan
Meaghan Downing
Mikaela Drake
Charles Dursin
Madison Eisenhour
Henry Elmhurst
  Minor: Business
Anna Eng
William Engdahl
Peter Fagerholm
Wenlan Fan
  Minor: Robotics Engineering
Ethan Farrah
Andrew Fauerbach
Timothy Feehrer
  Minor: Materials
Talya Feldman
Chongyuan Feng
Haojun Feng
Lucas Fernandes Vicenzotto
Angel Fernandez Sorondo
Ricardo Ferrua Elmudesi

Hailey Fink
 Mechanical Design Concentration
Seamus Flanagan
Braden Foley
Lilarose Forsyth
Nicholas Franzini
  Minor: Manufacturing Engineering
Michelle Frasch
Michael Fraser
Samuel Furman
Tianyang Gao
Joseph Gilmartin
Alexander Gladu
  Minor: Business
Michael Gobran
Alvaro Gonzalez Garcia
 Mechanical Design Concentration
Casey Gosselin
Dominick Gravante
Brendan Green
 Mechanical Design Concentration
Renee Gruner-Mitchell
  Robotics Concentration
  Minor: Business
Devin Guerrera
Maggie Gunville
  Minor: Environmental and Sustainability
  Studies
Evan Hallberg
Mariah Haney
 Mechanical Design Concentration
Lauren Hardy
Corinne Hartman
Jackson Hauman
Alexandra Heline
Meghan Hendry
Erik Herrera
Zachary Hershowitz
Alek Hersum
  Minor: Robotics Engineering
Kaleigh Hess
Isabelle Ho
 Mechanical Design Concentration
Ace Holod
  Minor: Chinese Studies
Mingsi Hu

Mechanical Engineering cont.:

Nathan Hyde
Edward Jackson
Shane Jackson
Nikita Jagdish
  Minor: Aerospace Engineering
Julia Jankowski
Alex Kalmar-Gonzalo
Daler Kang
Nicholas Karatzas
Brian Katz
Caitlin Kean
William Kelly
Stephen Kendrish
Yasaman Khosravi
Cole Kraus
  Minor: Robotics Engineering
Madison Kroncke
 Mechanical Design Concentration
Nathan Kumar
Sophie Kurdziel
Rowan Labaugh
 Mechanical Design Concentration
Danielle Lablanc
Jonathan Landay
Timothy Lanoue
Alexandria Lehman
Samuel Leonard
Nichole Leveille
  Minor: Astrophysics
Jennifer Lewitzky
Andy Li
Marissa Li
 Mechanical Design Concentration
Hannah Lindsey
Genavieve Lombara
 Materials Science and Engineering
 Concentration
Samuel Losh
Te Lu
Zhuofan Lu
Jacob Mackenzi
Nathan Maldonado
Ryan Malkowski
Matthew Maloney
 Biomechanical Concentration

Mary Marquette
Daniel Marsh
Christopher Martenson
Austin Master
Tanner McCarthy
Evan McCauley
Julia Meisser
Aidan Melgar
Tyler Melo
  Minor: Electrical and Computer
  Engineering
Connor Melone
Brendan Merritt
 Mechanical Design Concentration
Nathaniel Meyer
 Mechanical Design Concentration
Lucas Micheels
Kyle Mitchell
Nathan Morin
 Mechanical Design Concentration
William Morton
Mitchell Mudge
Evan Muzilla
Ana Paula Navarro Aguayo
Kevin Neidhart
  Minor: Manufacturing Engineering
Matthew Nicastro
 Mechanical Design Concentration
Alexis Nichols
Wayne Nolette
Taylor Nowak
  Minor: Materials
Shannon O'Connor
  Minor: Sustainability Engineering
Griffin O'Neil
Matthew O'donnell
Joshua O'grady
Katherine O'leary
Grace Olaya
Taylor Ostrum
 Biomechanical Concentration
Tarik Ourdyl
Brian Pacheco
Taylor Paradis
Jacob Parker
Nihal Patel

Mechanical Engineering cont.:

John Pattinson
  Minor: Sustainability Engineering
Lauren Paul
  Minor: Business
Katherine Pawlak
  Mechanical Design Concentration
Speros Perakis
  Minor: Robotics Engineering
Kelly Perfetto
Daniel Perno
Helena Petroff
Brittney Pham
  Minor: Biology
Kyle Postans
  Minor: Manufacturing Engineering
Kaitlyn Pothier
Alexander Puhalski
Leo Quick
Jasper Rankin
  Minor: Computer Science
Nathan Reed
Colin Reynolds
  Minor: Robotics Engineering
Alyssa Richardson
  Minor: Fire Protection Engineering
Mechanical Design Concentration
John Riley
  Minor: Manufacturing Engineering
Justin Riley
Anxhelo Ripa
Alexander Rivera
Elizabeth Roberts
  Biomechanical Concentration
Elizabeth Rocco
David Rodriguez
  Mechanical Design Concentration
Katherine Rosivach
Matthew Rotman
Jackson Rowland
Kwesi Sakyi
  Minor: Robotics Engineering
Shawn Salvatto
Matthew Sanford
Bailey Savage
  Mechanical Design Concentration

Joseph Scafidi
Dawson Scheid
Mary Scrivanich
  Minor: Data Science
Meghan Scruton
  Mechanical Design Concentration
Meghan Slaney
David Smith
Delia Smith
Eliza Smith
  Minor: Spanish
Timothy Snow
  Mechanical Design Concentration
Jieyuan Song
Liam Spence
  Minor: Spanish
Peter Springer
  Minor: Materials
Mitchell Sroka
Tyler Stack
  Mechanical Design Concentration
Molly Steinberg
  Minor: Business
Richard Steinberg
Thomas Sterrett
  Minor: Aerospace Engineering
Matthew Stevens
James Stolarczyk
  Minor: Electrical and Computer
  Engineering
Zachary Stone
  Minor: Business
Connor Sullivan
  Materials Science and Engineering
  Concentration
Molly Sykes
  Minor: Computer Science
Stephanie Tam
Alyssa Tepe
  Minor: Electrical and Computer
  Engineering
Benjamin Tetreault
Calvin Thomas
Daniel Trainor
Kaitlin Tripi
  Mechanical Design Concentration

Mechanical Engineering cont.:
  Dylan Turetsky
    Minor: Aerospace Engineering
  Benjamin Verdesi
  Adam Vespi
  Michael Viozzi
    Minor: Robotics Engineering
  Jack Waterman
  Erik Wegge
    Minor: Electrical and Computer
    Engineering
  Nicholas Weiland
  Katelyn Wheeler
  Wayde Whichard
  Marc Wicky Van Doyer
    Minor: Aerospace Engineering
  Kelsey Wilkinson
    Minor: Robotics Engineering
  Casey Willis
  Shawna Winters
  Tyson Wiseman
  Daniel Wrona
    Minor: Music
  Maureen Ye
  Jacob Yurcak
    Mechanical Design Concentration
  Khadir Zachery
  Calvin Zhang
  Howard Zheng
    Minor: Mathematics
  Thaddaeus Zuber

Physics:
  William Aaron
  Maranda Allen
    Minor: Computer Science
  Jacob Casey
  Nicole Garay
    Minor: Data Science
  Nickolas Gardner
    Minor: Computer Science
  Yifan Gu
    Minor: Mathematics
  Ryan Hanna
    Minor: Chemistry
  Allison Hershoff

  Caroline Jaeger
  Bhanuj Jain
  Brady Jeong
    Minor: Computer Science
  Brock Jolicoeur
  Morgan Kaler
  Brigitte Lefebvre
    Minor: Mechanical Engineering
    Minor: Nanoscience
  Benjamin Lunden
  Javery Mann
  Kaitlin Mason
    Minor: Mathematics
  Kaitlyn Morrison
    Minor: Mathematics
  Patrick O'Mullan
  Alexander Puhalski
  Thomas Rau
  Holden Snyder
  Daniil Volkov
  Brian Zawacki
  Gwyneth Zelmanow
  Yonglong Zhan
    Minor: Mathematics

Professional Writing:
  Noah Brennick
  Elaine Chen
  Sarah Doherty
  Cameron Fiddes
  Alexa Freglette
  Carley Gilmore
  Karen Ho
  Liza Hote
  Rachel Maurice
  Cristian Nunez
  Bridgette Paredes
  Erin Perry
  Silvana Reid

Psychological Science:
  Ricardo Ferrua Elmudesi
  Constantina Gatsonis
    Minor: Philosophy and Religion
  Karen Ho
    Minor: Chemistry

Psychological Science cont.:
  Ellie Koptsev
  Jennifer Lewitzky
  Lilly-Beth Linnell
  Anish Nakahara
    Minor: Drama/Theatre
  Paul Pacheco
  Psychobiology Concentration
  Malvina Piziak
  Zachary Wagner
  Rachelle Wailes

Robotics Engineering:
  Jesulona Akinyele
  Razan Andigani
  Ezekiel Andreassen
  Kenneth Armijo
  Brigid Auclair
    Minor: Computer Science
  Raymond Beazley
  Eli Benevedes
  Owen Blaufuss
    Minor: Computer Science
  Owen Buckingham
  Lucas Buermeyer
  Raymond Carter
  James Casella
    Minor: Computer Science
  Manjusha Chava
    Minor: Computer Science
  Alexander Corey
  Andrew Del Vecchio
  Atharva Dikshit
    Minor: Computer Science
  Benjamin Draper
  Gabriel Dudlicek
  Lily Durkin
  Madison Eisenhour
  William Engdahl
  James Englander
    Minor: Computer Science
  Tian Yu Fan
  Haojun Feng
  Dominic Ferro
  Kaitlyn Fichtner
  David Fournet

  Minor: Media Arts
  Anthony Galgano
  Kushal Kamleshbhai Gandhi
  Tianyang Gao
  Liam Jyn Godin
  Casey Gosselin
  Lauren Hatfield
  Nicholas Hom
  Karen Hou
    Minor: Interactive Media and Game
    Development
  Edward Jackson
  Yongxiang Jin
    Minor: Computer Science
  Brian Katz
  Stephen Kendrish
  Filip Kernan
  Jamie Krigsman
  Michael Laks
  Jonathan Landay
  Matthew Langkamp
  Amber Lindberg
  Hannah Lindsey
  Anthony LoPresti
  Tyler Looney
  Zhuofan Lu
  Mary Marquette
  Jason Martino
  Julia Meisser
  Archie Milligan
  Suela Miloshi
  Kyle Mitchell
  Alyssa Moore
    Minor: Computer Science
  Andrew Mularoni
  Peter Nikopoulos
  Tom Nurse
  Erin Perry
  Brandon Persons
  Matthew Rothman
  Garett Ruping
  Ilyas Salhi
  Shawn Salvatto
  Nathan Savard
  Ian Scott

Robotics Engineering cont.:
Patrick Siegler
  Minor: Mechanical Engineering
Brandon Snapperman
Jieyuan Song
Lauren Sowerbutts
Gus Teran
Anthony Tesoriero
Oliver Thode
Jarius Thomas
Ryan Tougas
Conrad Tulig
Lauren Wach
  Minor: Mechanical Engineering
Yoni Weiner
Katelyn Wheeler
Ryley Wheelock
Sawyer Wofford
Jiyang Jeffrey Wu

Society, Technology and Policy:
Rafaello Adler-Abramo
  Minor: Environmental and Sustainability Studies

Date: May 10, 2022
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to approve the May 2022 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 12, 2022. 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 12, 2022, graduation.

Doctor of Philosophy Degree

Biochemistry:
  Androniqi Qifti

Biology and Biotechnology:
  Ying Zhou

Business Administration:
  Samuel Allen
  Shima Azizi
  Shiya Cao

Chemical Engineering:
  Zhiru Zhou

Chemistry:
  Alexandria Leveille

Civil Engineering:
  Yinduo Chen
  Arvand Navabi

Computer Science:
  Xin Dai
  Oleksandr Narykov

Data Science:
  Narges Ahani
  Suhas Srinivasan
  ML Tlachac
  Hang Yin
  Liang Zhang
  Yingxue Zhang

Electrical and Computer Engineering:
  Raunak Borwankar
  Ian Costanzo
  Kuldeep Gill
  Saad Islam
  Kyle McClintick
  Luyao Niu

Fire Protection Engineering:
  Xiaoyue Pi

Learning Sciences and Technology:
  Avery Closser

Materials Science and Engineering:
  Reisya Ichwani
  Christopher Massar
  Bryer Sousa
  Vanessa Uzonwanne
  Panawan Vanaphuti
  Yao Xu
  Songge Yang

Mathematical Sciences:
  Elisa Negrini
  Jiaxuan Ye

Mechanical Engineering:
  Ashley Chu
  Chase St. Laurent
  Haimi Tang
  Mengqiao Yang

Robotics Engineering:
Nathaniel Goldfarb
Kenechukwu Mbanisi

Master of Business Administration Degree

Justin Deveau
Christopher Dunn
Charles Koutsogiane
Edi Naco
Heath Oikle
Timothy Roberts

Master of Engineering Degree

Biomedical Engineering:
Ramona Bago
Julianna Cognetta
Lyra Huynh
Jordan Jones
Hanson Lee
Jordan Rosenfeld
Bryce Wade

Electrical and Computer Engineering:
Redon Hoxha
Daniel Mantoni
Thomas Sullivan
Daniel Wasson

Power Systems Engineering:
Rachel Danz
Caitlin Gusk
Jamison LaRoche
Christopher Schramm
James Scott
Julie Walsh
Richard Wilbur

Master of Mathematics for Educators Degree

Charles Eppinger
Ashley Fagan

Kathleen Kenney
Kerrie Pratt
Victoria Zamarra

Master of Science Degree

Aerospace Engineering:
Sophie Balkind
Leila Card
Olivia Chiasson
Abigail Collins
William Cooley
Terrance Cooper
Matthew Greenlaw
Alyssa Hollander
Matthew Karns
Veronika Karshina
Meenakshi Kodali
Allison Robatzek
Nicholas Sackos
Eric Scholz
Christian Schrader
Aaron Smith
Thierry de Crespigny

Applied Mathematics:
Sean Fraser
Nikolaos Kalampalikis

Applied Statistics:
Ryan Candy
Zhangying Huang
Zhengdao Jiao
Enbo Tian
Diyu Yang

Biochemistry:
Jordan Wynn

Bioinformatics and Computational Biology:
Jules Cazaubiel
Nicholas Tourtillott

Biology and Biotechnology:
 Matthew Bruno
 Solimar Ramis de Ayreflor Reyes

Biomedical Engineering:
 Logan Gaudette
 Enxhi Jaupi
 Karina Mirochnik

Biotechnology:
 Uwaifo Asemota
 Daniel Bereznyakov
 Samantha Carroll
 Serena David
 Brianna Donnelly
 Kristin Gothier
 Jiahao Lixue
 Victoria Scott

Business Analytics:
 Priyanka B
 Venkata Kompella
 Daniel Walker

Chemical Engineering:
 Marissa Breeden
 Antonia Dinicu
 Madison Reed
 Muntasir Shahabuddin
 Sylvia Thomas
 Yi jie Wu

Chemistry:
 Roy Stoflet

Civil Engineering:
 Joseph Tzanetos

Computer Science:
 Merzia Naeem Adamjee
 Sami Baral
 Cooper Bennet
 Nikita Boguslavskii
 Noah Capucilli-Shatan
 Edward Carlson
 John Carroll

 Samantha Crepeau
 Joseph Cybul
 Xuhui Fan
 Kevin Fortier
 Alketa Guxha
 Aaron Krueger
 Junying Li
 Pichayut Liamthong
 Shary Johana Llanos Antonio
 James MacDonald
 Robear Mankaryous
 Katherine Martin
 Laurie Mazza
 Brian McKay
  Computer Security Concentration
 Connor McLaughlin
 Manas Mehta
 Felipe Mejias
 Veronica Melican
 Cameron Mitchell
 Noah Olson
  Computer Security Concentration
 Pooja Patel
 Jean-Luc Pierre-Louis
 James Plante
 Tyler Reiser
 Daniel Ribaudo
 Raysa Rivera-Bergollo
 Renee St. Louis
 Vlad Stelea
 Shannon Truong
 Freddy Veloz Baez
 Samantha Woodland
 William Yang

Cyber Security:
 Thomas Graham
 Carly Pereira

Data Science:
 Jorge Aguirre
 Akshaj Balasubramanian
 Palawat Busaranuvong
 Kathleen Cachel
 Vincent Filardi
 Matthew Finn

Data Science cont.:
Jose Gamez Carias
Mohammad Ghanbari
Miranda Hernandez-Reisch
Brendan Jacques
Robert Johnson
Madyson Kelly
Xiuhan Li
Yufei Lin
Si Liu
Leah Mitchell
Farah Mohsin
Siddhi Patil
Philip Rago
Sitanshu Nitin Rupani
Ronak Sankaranarayanan
Ashley Schuliger
Laura Staugler
Jingfeng Xia
Jinhong Yu
Wentao Zhao

Electrical and Computer Engineering:
Nachiket Bapat
Peter Campellone
Shiyu Cheng
Zachary Clapper
Ramazan Kaan Eren
Maya Flores
Saad Islam
Ravi Kirschner
Matthew Miller
David Oles
Nicholas Olgado
Josiah Perrin
Mirco Sciulli
Richa Singh
Myo Thein
Alexander Thurley
Muttalip Caner Tol
Jeffrey Tolbert
Xinguang Wang

Environmental Engineering:
Brielle Cash
Evelyn Choudhary

Shannon Dasilva
Kelsey Ouellette
Lora Rinaldi
Sebastian Stypulkowski
Jacquelyn Valsamis

Fire Protection Engineering:
Gabriel Bitzer
William Calcagno
Cameron Labbree
Andy Li
Sara Lyons
Maiya Mitchell
Matthew Odom
Benjamin Seeto
Matthew Stroebel
Juan Vargas
Jae Wook Yu
Jon Zimak

Industrial Mathematics:
Kayleigh Campbell

Information Technology:
Ethan Di Renzo
Tianze Huang

Innovation with User Experience:
Michael Osei
Michelle Santacreu

Interactive Media and Game Development:
Andrew Nichols-Melton
Miquel Sans Cornet

Learning Sciences and Technology:
Vy Ngo
Luisa Perez Lacera

Management:
Emma Bailey
Madeline Blake
Caitlin Boermeester
Camille Bouchard-Chhoeuk
Eva Bruklich

Management cont.:
Anna Catlett
Isabelle Chi
Ruchita Choksey
Isabelle Claude
Makayla D'Amore
Kahleb Downing
Meaghan Downing
Meredith Forcier
Hannah Gelman
David Hinckley
Xavier Hines-Coombs
Zoe Januszewski
Jonathan Jironvil
Denisa Kim
Georgia Koulikas
Mairead O'neill
Sofia Orrico
Brooklynn Paris
Celina Perino
Kevin Ramos
Matthew Sanford
Matthew Shriner
Nadia Singh
Kat Tarantino
Kade Woolverton

Manufacturing Engineering:
Matthew Goddard
Nicholas Karatzas
Anna Mercaldi

Marketing and Innovation:
Rusi Li
Ziming Ye

Materials Process Engineering:
Daniel Felix

Materials Science and Engineering:
Winston Averill
Kweku Colecraft
Michael Cuddy
Audrey Jean Philippe

Alexander McMahon
Elizabeth Rocco
Aidan Sevinsky

Mathematics for Educators:
Kimberly Hilton

Mechanical Engineering:
Joseph Alvarado
Skylar Barthelmes
Nolan Birtwell
Sydney Borrello
Meghan Brady
Grete Bressner
Owen Carlstrom
Derek Chhiv
Igor De Moraes
Sarah DeMaio
Ella Deane
Charles Dursin
Anna Eng
Michael Gobran
Dominick Gravante
Andrew Gray
Austin Higgins
Colin Hiscox
Tyler Hunt
Anh Quang Huynh
Michael Keable
Douglas Koethe
Timothy Lanoue
Alexandria Lehman
Genavieve Lombara
Matthew Maloney
Brittni McCall
Brendan McCann
Colin McNamara
Nicholas Miller
William Morton
Taylor Nowak
Abigail O'Sullivan
David Okhman
Helena Petroff
Brian Preiss
Brianna Raphino
Colin Reynolds

Mechanical Engineering cont.:
  Anxhelo Ripa
  Kwesi Sakyi
  Zachary Sears
  Noah Shoer
  Meghan Slaney
  Benjamin Steeves
  Oliver Thomas
  Diego Vaca Revelo
  Benjamin Verdesi
  Calvin Zhang
  Howard Zheng
  Nils van den Boogaard

Neuroscience:
  Kathryn Nippert
  Benjamin Roop

Operations Analytics and Management:
  Shreya Bhattacharjee
  Anne Davis
  Kayla Fabry
  Lingqing Su

Operations and Supply Chain Analytics:
  Nikita Dilip Vadhani

Physics:
  Kevin Stern

Physics for Educators:
  Richard Cohen

Power Systems Management:
  Ameen Shakir

Robotics Engineering:
  Ali Abdelhamid
  James Akl
  Jessica Babcock
  Jacob Beiting

Taylor Bergeron
Preyash Bhansali
Steven Brewer
Ryan Carnemolla
Chintan Desai
Mandar Deshmukh
Thomas Ford
Spencer Howes
Lyndsey Mandelare
Sean McKeever
Arielle Mizov
Muqeet Jibran Mohammed Abdul
Meha Mohapatra
Nghia Nguyen
Adam Nudelman
Brandon Persons
Kalani Picho
Trevor Rizzo
Eric Rogers
Marlon Scott
Yash Parag Shah
Abedin Sherifi
Trevor Sherrard
Justin Smith
Brian Wells
Ryley Wheelock

Supply Chain Management:
  Adenike Obayemi

Systems Engineering:
  Alexandra Auteri
  Thomas Boynton
  Michaela Dowling
  Michael Massar
  Basak Soylu
  Kimberly Sward
  Rachel Wardwell

Systems Engineering Leadership:
  Samuel Almeida

Date: May 10, 2022
To: WPI Faculty
From: Committee on Appointments and Promotions (Prof. Iannacchione, Chair)
 Committee on Governance (Prof. El-Korchi, Chair)
Re: Motion to add criteria for promotions in the Professor of Teaching track

Motion: The Committee on Appointments and Promotions and the Committee on Governance recommend, and we move that the Faculty Handbook, (PART TWO, Policies and Operating Procedures; Section 1, Policies Regarding the Status of Faculty; Subsection D, Promotion) be modified to add language describing the criteria for promotions in the Professor of Teaching track, as described below.

Description of the proposed changes to the Faculty Handbook:
(To be inserted in PART TWO, Section 1, Subsection D between subsections the D.1 and the old subsections D.2 that will be renumbered D.3 and so on.)

D.2.1 Criteria for Promotion in the Professor of Teaching Track
The tenure-track faculty in the Professor of Teaching track make a variety of contributions as educators, innovators, and leaders that advance WPI's educational mission and visibility.

The criteria for promotion to Associate Professor of Teaching are the same as the tenure criteria for the Professor of Teaching track (Part Two, Section 1.A). The candidate should have demonstrated high-quality teaching practice with significant impact, maintained a commitment to professional growth and currency that has significant impact, developed creative pedagogical approaches within the context of their discipline or beyond, and showed the promise for continued high-quality performance in these areas. Evidence of quality service to the program/department/school, the WPI community, the field/profession, and/or the local/regional community is also expected.

The specific categories of performance in the (full) Professor of Teaching rank are teaching practice; continuing professional growth and currency; and service. The candidate for promotion to full Professor of Teaching should demonstrate continuing high-quality teaching practice with significant impact on students as well as a record of contributions and professional growth and currency that includes creative pedagogical approaches within the context of their discipline or beyond and that demonstrates a positive external impact beyond WPI as appropriate to the candidate's area of expertise. The standards for promotion to full Professor of Teaching are similar to those for promotion to Associate Professor of Teaching, with the expectation of continued contributions that demonstrate a positive external impact beyond WPI since becoming an Associate Professor of Teaching. Contributions to WPI may demonstrate an external impact if they are disseminated and/or recognized externally. In most cases, the high-quality and positive external impact of contributions must be recognized by peers within WPI and by knowledgeable experts external to WPI.

Because service and citizenship are an integral part of being a tenured faculty member at WPI, a candidate for promotion must also have established a significant record of performance in service and citizenship contributions to the program/department/school, the WPI community, the

field/profession, and/or the local/regional community. WPI values both individual and collaborative work within and across the domains of teaching practice, professional growth and currency, and service.

While it is expected that these criteria describe the great majority of cases, there may be exceptional candidates whose unique contributions, while not conforming to these guidelines, are deserving of promotion.

Candidates who switched into the Associate Professor of Teaching rank from a non-tenure track should first achieve tenure before seeking promotion to full Professor of Teaching.

D.2.1. Definition of Teaching Practice, Professional Growth, and Currency
The definitions of the primary areas of teaching practice, continuing professional growth and currency, and service along with guidelines for documenting these are detailed in the Tenure Criteria for the Associate and (full) Professor of Teaching (Part Two, Section 1.A) and in the Guidance for Documenting and Assessing Activities Toward Tenure for Professors of Teaching (Part Two, Section 1.A).

The Professor of Teaching track emphasizes the professional growth and currency of each faculty member, especially when it advances the candidate's teaching and/or discipline more broadly and contributes to WPI's educational mission and visibility. Professional growth and currency include but are not limited to experimenting and exploring for the purpose of innovative teaching (as described in the Tenure Criteria for the Associate and (full) Professor of Teaching, Part Two, Section 1.A) and/or remaining continually active as scholars through the scholarship of discovery, teaching and learning, integration, application and practice, or engagement (as defined in Definition of Scholarship, Part Two, Section D.1.2).

<u>**Rationale:**</u>
COAP proposes to include language for the criteria for promotion in rank in the Professor of Teaching track. No such language exists and there is a critical need to have language that reflects the language used for the tenure process as well as the Assistant to Associate rank promotion for the Professor of Teaching track outlined by CTAF. The criteria described for promotion from Associate to Full rank in the Professor of Teaching track incorporates the language developed for teaching practice, and professional growth and currency, as well as language developed by the ADVANCE group to provide clearer description of Service.

Date: May 10, 2022
To: WPI Faculty
From: Committee on Appointments and Promotions (Prof. Iannacchione, Chair)
Committee on Governance (Prof. El-Korchi, Chair)
Re: Motion to add procedures for promotion to (full) Professor of Teaching

Motion: The Committee on Appointments and Promotions and the Committee on Governance recommend, and we move that the Faculty Handbook, (PART TWO, Policies and Operating Procedures; Section 1, Policies Regarding the Status of Faculty; Section D, Promotion) be modified to add language describing the procedure for promotion to (full) Professor of Teaching.

Description of the proposed changes to the Faculty Handbook:
(To be inserted in PART TWO, Section 1, Subsection D to follow new subsection D.2.2 of the previous motion and to be inserted between subsection D.1 and the old subsections D.2 that will be renumbered D.3 and so on.)

D.2.3. Documentation in the Promotion Dossier
The candidate for promotion to full Professor of Teaching will submit a promotion dossier representative of their overall career, with an emphasis on work since tenure and/or promotion to Associate Professor of Teaching. The candidate's promotion dossier will include the following: a curriculum vitae (CV); a personal statement of teaching practice, professional growth and currency, service, and impact; a teaching portfolio to document high-quality teaching delivery with significant impact; sample artifacts demonstrating commitment and significant impact of continuous professional growth and currency – especially as it demonstrates innovative teaching and creative pedagogical experimentation within and/or beyond the context of their discipline, and other indicators to demonstrate the high quality and external impact of the candidate's contributions.

- The **CV** provides comprehensive documentation of the candidate's experience and accomplishments in teaching practice, continuing professional growth and currency, and service.

- The **personal statement** provides a reflective summary and description of the candidate's professional accomplishments and contributions. Typically, the personal statement will include sections on teaching practice, professional growth and currency, service, external impact, and future plans. The statement should provide a narrative arc that helps the committee and the Provost understand the candidate's activities to date, how those activities benefit the candidate and enhance WPI's educational mission and visibility, and how they will lead to the next stage of the candidate's career.

- The **teaching portfolio** provides documentation of the candidate's high-quality teaching practice with significant impact. A teaching portfolio presents representative teaching materials and evidence of their effectiveness. Typical elements in a teaching portfolio include a reflective statement of the candidate's approach to teaching and learning, samples of teaching materials and teaching innovations, and measures of teaching effectiveness or materials that demonstrate student learning.

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- The **sample artifacts** provide documentation of the high-quality and external impact of the candidate's contributions to teaching practice and their successes in professional growth and currency especially as those successes demonstrate creative pedagogical development and exploration. Contributions may be documented and disseminated through a variety of artifacts. The continuum of artifacts through which successful contributions may be documented and disseminated matches, in its inclusiveness and variety, the continuum of ways one may demonstrate impact and quality of teaching practice and impact and commitment to professional growth and currency.

- The candidate is welcome to submit any metric of external impact they wish so long as the context is explained.

Overall, the candidate should use this documentation to present the case that they have achieved the criteria for promotion. Contributions may combine or cut across traditional categories of teaching practice, continuing professional growth and currency, and service. The candidate is invited and encouraged to use the promotion dossier to make arguments for the quality and impact of their work using these categories or in other ways if those other ways are appropriate to the form and impact of their teaching and other professional contributions.

In addition to the above materials submitted by the candidate, the Joint Promotion Committee (JPC) will add four other sources of information to the complete promotion review dossier: 1) Summary student ratings for all courses and projects taught at WPI in the last five years. 2) Responses to a teaching evaluation sent to a random selection of former students and alumni whom the candidate has taught in the last five years. 3) Letters of appraisal solicited by the committee from internal and external peers for a confidential evaluation of the materials submitted by the candidate for the promotion dossier.

D.2.4. Standards for Evaluation of the Promotion Dossier: Quality, Commitment, Impact and Peer Review
The candidate's promotion dossier and the criteria for promotion (sections D2.1 – D.2.3) will be sent to peers within WPI and to knowledgeable people external to WPI for an independent assessment of the candidate's teaching practice, professional growth and currency, and service – with respect to quality, impact, and commitment, as appropriate. These letters of appraisal will be read only by people who are directly involved in the evaluation of the nomination for promotion, and they will not be shown to the candidate or to anyone else. This section provides additional guidance to reviewers for this assessment.

An assessment of **high-quality teaching practice with significant impact**, **commitment to and significant impact of professional growth and currency**, **and service** may be based on any and all material in the promotion dossier, including the CV, personal statement, teaching portfolio, sample artifacts, or indicators of external impact. Traditional measures to assess quality do not necessarily accommodate all areas of teaching practice, professional growth and currency, and service. Nonetheless, the following six standards have been identified to evaluate quality across diverse areas: clear goals, adequate preparation, appropriate methods, significant impact, effective presentation, and reflective critique. Since the dossier includes the candidate's reflective critique

in their personal statement, peer reviewers are invited to apply these six standards to assess the candidate's teaching practice, professional growth and currency, and service in the promotion portfolio.

External impact beyond WPI should be assessed based on the relevant standards in the areas of the candidate's contributions. Thus, the starting point to assess external impact is the candidate's personal statement, which should identify the area or areas of their contributions across teaching practice, professional growth and currency, and service and indicate examples of external impact beyond WPI. WPI recognizes that the weight assigned to quantitative measures and documented evidence of impact varies widely along the continuum of contributions and accomplishments of candidates for Professor of Teaching. Consequently, candidates are not limited in the relevant evidence they may provide to demonstrate external impact.

Peer reviewers should be experts in or experienced practitioners of, and therefore appropriate evaluators of, the area or areas of the candidate's contributions. Where appropriate, external reviewers may include experts whose institutional affiliation is beyond the academy if they are well-placed to testify to or evaluate the quality and impact of the candidate's contributions.

All reviewers—internal and external peers, members of promotion committees, or academic decision-makers—are reminded that **implicit and explicit bias** has been shown to occur in every aspect of a faculty career that is evaluated. Empirical studies have shown that letters of recommendation for women and men differ in gendered ways: letters for women are often shorter, less detailed, and reinforce gender stereotypes. Women faculty and faculty of color also may face bias in student ratings of teaching or in mentoring and sponsorship. The choice of area or areas for professional contributions (e.g. interdisciplinary, qualitative, community-engaged, theoretical, or digital) may result in comparatively traditional recognition but nevertheless demonstrate high quality and impact in forms appropriate to those contributions. The Committee on Appointments and Promotions highlights potential sources of bias in this description of the standards for evaluation of the promotion dossier so that all reviewers at every stage of the review process will be aware of potential implicit and explicit bias and take care to limit opportunities for such bias to influence the consideration of each nomination for promotion.

Rationale:
COAP proposes to include language for the procedures for promotion in rank in the Professor of Teaching track. No such language exists and there is a critical need to have language that reflects the language used for the tenure process as well as the Assistant to Associate rank promotion for the Professor of Teaching track outlined by CTAF. The procedure described for promotion from Associate to Full rank in the Professor of Teaching mirrors those used for all other procedures for promotion but details the specific elements needed for the Professor of Teaching track.

Date: May 10, 2022
To: WPI Faculty
From: Committee on Appointments and Promotions (Prof. Iannacchione, Chair)
Committee on Governance (Prof. El-Korchi, Chair)
Re: Motion to modify eligibility and time in rank guidelines for promotion of tenured and tenure-track faculty

Motion: The Committee on Appointments and Promotions and the Committee on Governance recommend, and we move that the language regarding eligibility and time-in-rank for the tenured and tenure-track faculty members in the Faculty Handbook, (PART TWO: Policies and Operating Procedures; Section 1. POLICIES REGARDING THE STATUS OF FACULTY; Subsection D. Promotion) be modified, as described below.

Description of the proposed changes to the Faculty Handbook:

Current wording in the Faculty Handbook:
PART TWO: Policies and Operating Procedures
Section D: Promotion

D.2. Procedures for Promotion Nomination and Review

D.2.1. Eligibility and Time in Rank
A candidate for promotion to **Associate Professor** normally will have completed five years as an Assistant Professor before a promotion review in the sixth year. Probationary faculty with initial appointment as Assistant Professor normally receive a combined review for tenure and promotion to Associate Professor from a Joint Tenure Committee, as described in Part Two, Section 1.A. Only in exceptional circumstances should an Assistant Professor be nominated for promotion to Associate Professor earlier than the scheduled tenure review.

To be considered for promotion to professor, an associate professor must have demonstrated considerable professional growth. A candidate for promotion to **Professor** normally will have completed at least five years as Associate Professor and at least three years as an Associate Professor at WPI before the year of the promotion review. Only in exceptional circumstances should an Associate Professor be nominated for promotion to Professor at an earlier date.

Proposed wording in the Faculty Handbook:
PART TWO: Policies and Operating Procedures
Section D: Promotion

(<mark>Highlighted</mark> text is added or modified wording. Red text was added and red ~~struckthrough~~ text was deleted as an amendment approved at the May 10, 2022 faculty meeting.)

<mark>D.3.</mark> Procedures for Promotion Nomination and Review

<mark>D.3.1.</mark> Eligibility and Time in Rank <mark>for Tenured and Tenure-Track Faculty</mark>
<mark>A candidate for promotion to the associate rank in any track must have completed at least three years and normally will have completed five years at the assistant rank in the same track before a promotion review in the sixth year</mark>. Probationary faculty members with initial

tenure-track appointments at the assistant rank in any particular track normally receive a combined review for tenure and promotion to the associate rank in the same track from a Joint Tenure Committee, as described in Part Two, Section 1.A. Only in cases of exceptional professional achievement should a faculty member at the assistant rank be nominated for promotion to the associate rank earlier than the scheduled tenure review. These exceptional professional achievements must be explicitly documented in the nominator's letter. In these cases, the promotion criteria used will be the same as the tenure criteria for that particular track.

To be considered for promotion to full professor in any track, an associate ranked faculty member must have demonstrated considerable professional growth while at the associate rank. A candidate for promotion to the full rank in a particular track normally will have completed at least five years at the associate rank in the same track and at least three years at the associate rank in that track at WPI before the year of the promotion review. Only in cases of exceptional professional achievement should a candidate at the associate rank be nominated for promotion to full rank at an earlier date. These exceptional professional achievements must be explicitly documented in the nominator's letter.

Faculty members switching from the Teaching Professor track to the Professor of Teaching track take on the same rank in their new track,. starting their time-in-rank clock on the new track unless their Time-in-rank will be detailed in each candidate's appointment letter at the time of the switch in tracks to specifiesy years credited toward time in rank on the new track.

Rationale:
Because of the introduction of a new tenure-track line of Professor of Teaching, wording for the eligibility and time-in-rank needs to be modified in order to apply to this new line. In addition, because this new tenure-track is a teaching path to tenure, the shift in track from TRT to TTT can occur at nearly any time during the Teaching Professor's career that decouples the traditional timeline and tenure decisions thus, specific language is needed to deal with articulating minimal requirements, especially for time-in-rank.

Date: May 10, 2022
To: WPI Faculty
From: Fringe Benefits Committee (Prof. Radzicki and Prof. Sarkis, Co-Chairs)
Committee on Financial and Administrative Policy (Prof. Fehribach, Chair) and
Committee on Governance (Prof. El-Korchi, Chair)
Re: Motion to approve a Resolution calling for the full restoration of retirement benefits

Motion: The Fringe Benefits Committee, the Committee on Financial and Administrative Policy, and the Committee on Governance recommend, and we move that the following Resolution be approved:

Resolution:
Be it resolved that WPI should take steps to restore lost faculty and staff retirement contribution as well as needed spending and staffing to match pre-COVID levels (the levels that were effective in academic year 2019/2020). Be it also resolved that WPI should consider making retroactive retirement contributions that were lost during 2020/2021 (3%) and 2021/2022 (1.5%) fiscal years.

Preamble:

Faculty Handbook: Part Two
Section 3: Certain Policies on Faculty Benefits and Opportunities
Subsection F: The Fringe Benefits Committee
The Fringe Benefits (FBC), a subcommittee of FAP, is responsible for reviewing and proposing changes to the WPI fringe benefits offerings with special attention paid to the evaluation and recommendation of health care plans and health insurance providers, tuition benefits, disability plans, and retirement policies . The committee includes faculty and staff voting members.
(Faculty Handbook, Part 2, Section 3F page 2-48).

Faculty Handbook: Part One
Bylaw One: Membership, Duties, And Responsibilities of Standing Committees of the Faculty
Section VIII: The Committee on Financial and Administrative Policy (FAP)
FAP informs the Faculty on administrative and financial matters that affect the Institute. FAP ascertains the interests and views of the Faculty concerning such matters, deliberates with appropriate access to institutional data, and works with the Administration to make recommendations that serve the best interests of the Institute.
(Faculty Handbook, Part 1, Bylaw 1, Section VIII, page 1-13).

Rationale:
In the Fall 2019, WPI established the WPI Forward initiative, an extensive review of institutional expenditures, guided by the external consultant Huron Corporation. By analyzing institutional expenditures across all spending categories, WPI Forward was charged with identification and recommendation for specific actions that could be taken to generate $8.5 million in savings. The savings would in turn be invested to increase affordability of WPI education for a diverse group of incoming students by increasing financial aid and tuition discount rate.

One of the spending categories that was examined focused on 403(b) contribution and merit salary increase. During Spring 2020, a working group generated a report containing their analyses and peer benchmarking and drafted several recommendations for the President to consider.

In Spring 2020, the potential impact of COVID on operating budget further contributed to the resolve to reduce expenditures.

To offset a potential financial impact of COVID, in May 2020, the Board voted to temporarily reduce retirement contribution from 11 to 8% for 2020/21 and to eliminate salary raises (both base and merit) for the 2020/21. By reducing the retirement contribution, the Board unilaterally rewrote the implicit contract between the university and its faculty and staff.

In May 2021 the Board
- Partially restored retirement contributions to 9.5% effective July 1, 2021 (WPI Forward recommendation was 10%).
- Restored salary pool for base and merit increases to 3% from October 2021 to June 2022 (9 months).

As a result, faculty and staff have lost a cumulative amount of diminished retirement benefits (11% to 8% for one year, and to 9.5% for the second year), and 15 months of no salary increases between July 2020 and October 2021.

While the 30 percent cut to our retirements cost us each thousands of dollars in our annual compensation, the larger issue remains that faculty and staff have been asked to bear the brunt of deep cuts to the academic mission as well. The University implemented a hiring freeze, including hiring 16 of 22 planned new full-time faculty lines that had been projected for the upcoming year. That combined with attrition in the forms of 12 professors taking early retirement, 11 non-continuing NTT faculty, and 5 faculty transitioning to part-time. Each academic Department lost ~30% of their non-salary operating budgets while enrollment of undergraduate students continues to grow.

Fortunately, the University has weathered the uncertainty of COVID impact better than anticipated and both fiscal years 2019/20 and 2020/21 ended with millions of dollars in operating surpluses. Full restoration of retirement benefits and retroactive contribution awards are expected actions of the University that values the well-being of the community, expects collective responsibility, and praises dedication of its members – all highlighted in the new Strategic Plan.

Impact: Reestablishing the retirement contribution will allow us to continue attracting highly qualified personnel, while retaining current faculty and staff.

1. The most recent COACHE survey of faculty satisfaction deployed in spring 2021 identified only one area of common dissatisfaction – retirement benefits.

2. Faculty and staff morale has been greatly affected by the reduction in retirement benefits. A recent mental health task force survey identified financial security as among the stressors experienced by faculty and staff— need for *improved* benefits were highlighted

3. The reduction in this benefit disproportionately affects younger and lower paid faculty and staff.

Implementation: The Committees recommend that the Resolution be delivered to the President and the Board of Trustees immediately upon its approval by the Faculty and that the recommendations be incorporated into the budget for 2022/23 starting July 1, 2022.

Date: May 10, 2022
To: WPI Faculty
From: Committee on Information Technology Policy (Prof. R. V. Cowlagi, Chair)
Re: Motion to establish the Learning Management System and Video Lecture Support Policy

Motion: The Committee on Information Technology Policy recommends, and I move, that the Learning Management System and Video Lecture Support Policy be established as described below.

This proposed Policy has been developed in close collaboration with the Committee on Academic Policy and the Committee on Graduate Studies and Research.

<u>Description of Proposed Policy</u>
Please see the next page.

Learning Management System and Video Lecture Support Policy

I. <u>Purpose</u>

To support its teaching mission, WPI provides several Information Technology (IT) tools including a Learning Management System (LMS) and software systems for developing and disseminating course materials. Video lectures are increasingly used among course materials, especially for remote learning. The creation, storage, and dissemination of videos requires significant IT resources. This policy addresses the IT tools that support developing and disseminating course materials and specifically addresses video content recording and dissemination. This policy describes the various use cases of these tools, logistical procedures, data retention standards, the rights and responsibilities of users, and other guidelines. This policy is intended to enable effective use of these IT tools for teaching while also maintaining compliance with state and federal laws and other WPI policies.

II. <u>Scope</u>

This policy applies to all Faculty members, students, staff, and others ("Users") who use the University-supported IT tools for academic coursework. This document will be reviewed annually and may be updated to accommodate evolving IT tools for teaching.

This policy specifically applies to the following IT tools provided at WPI: (1) Canvas, which is the LMS, (2) Canvas Studio, Echo360, and Ensemble Video, which are software systems for video lecture recording and/or dissemination, (3) class capture hardware systems such as cameras and microphones installed in classrooms on the WPI campus, and (4) Zoom and Zoom Cloud, which are video conferencing and recording software systems. This policy does not apply to any other system used for creating or disseminating audio-visual recordings, e.g., personal YouTube accounts or third-party video recording tools.

III. <u>Definitions</u>
- **Managing Unit:** The WPI Academic Technology Center (ATC) is the managing unit responsible for the IT tools addressed in this policy.
- **Student Information System (SIS):** WPI currently uses Workday as a SIS for managing student enrollment and course registration data.
- **Learning Management System (LMS):** WPI currently uses Canvas by Instructure as an LMS for managing all electronic course material. For every course in the SIS, a unique website ("LMS Course Site") is automatically created within the LMS.
- **Class Capture:** the action of recording live sessions or other audio-visual course content in a classroom on the WPI campus.
- **Video Lecture:** audio-visual content used for coursework, regardless of the author(s) of the content (i.e., faculty, staff, students, or non-WPI-affiliated guest).

IV. <u>Policy</u>

The use of the LMS, class capture hardware, and software tools is optional for course instructors, i.e., instructors may "opt-in" to the use of these tools. Here "opt-in" means that these tools will *not* be used by default *unless* the course instructor chooses to do so. For example, classroom sessions will not be recorded by default without the consent of the instructor. In exigent

circumstances affecting WPI, the use of some of these tools may be enabled by default. Any such decision to use these tools by default must be first approved by the Committee on Academic Policy (CAP), the Committee on Graduate Studies and Research (CGSR), and the Committee on Information Technology Policy (CITP), and followed by a vote of approval from the WPI Faculty. In such circumstances, provisions must be made for instructors to decline the use of any or all of these tools (i.e., "opt-out" of their use).

Instructors who choose to use any of these tools shall adhere to this policy in addition to the WPI Acceptable Use Policy. WPI-ITS shall ensure that these IT tools comply with academic policies and shall clearly communicate the provisions of this policy to users. Data stored on the LMS, Canvas Studio, Echo360, and Zoom Cloud is not considered "User Electronic Information" as defined in the WPI Access to User Electronic Information Policy and is therefore not subject to that policy.

A. Use and Operation

For all courses with a course registration number in the SIS (Workday), an LMS course site is automatically created. The course instructor and all registered students are provided access to the LMS course site by default. The LMS course site provides mechanisms to disseminate all course materials including assessments and to communicate with students registered for the course. Students can access the contents of an LMS course site only after the site is enabled ("published") by the instructor.

Access to the LMS, Echo360, and Zoom is available to all WPI community members using their WPI user account credentials. This policy does not apply to access via user's personal account (e.g., personal Zoom account). Consortium students officially enrolled in WPI courses have a WPI user account. Students with inactive WPI accounts, e.g., students making up for previous Incomplete grades but not presently enrolled in any courses, must work with the Registrar to reactivate their status and gain access to the LMS. Further details about user roles and data access privileges in the LMS are identified in Sec. IV-B (User Roles and Access Management).

Instructors who choose to provide students with video lectures should consider the following typical use cases and consider the use of IT tools in developing and disseminating such video lectures.

Use case	Description	Logistics
Classroom recording	The recording of a lecture or other class activity as it happens in a classroom on the WPI campus during scheduled class hours.	Classroom activity is recorded by class capture hardware, which typically includes (1) an overhead camera pointed at the lectern, (2) screen capture of any content displayed by the overhead projector, and (3) microphones affixed to the lectern. Additional wireless microphones may be borrowed from the ATC. The recorded videos are stored on Echo360 servers and may be accessed by the instructor through their Echo360 account. Echo360 is integrated with the LMS and classroom recordings automatically appear in the LMS course site under the "Echo360" link.
Virtual classroom recording	The recording of a lecture or other class activity as it happens in a Zoom virtual classroom during scheduled class hours.	Zoom allows the content owner to record audio, computer screen, and video. However, if student privacy is a concern, controls in the software allow for recording only what is on the screen and not student images. Zoom Cloud and Zoom local recordings can be imported into Echo360. To facilitate this import, Users should contact ATC support via email at hub@wpi.edu.
Other video recordings	An audio or video lecture prepared outside of class hours. This includes videos prepared by faculty, staff, and students using the IT tools for any purpose.	An audio-visual recording is created using a WPI computer or a personal computer with hardware specific to that computer. Software tools for creating such a recording include Canvas Studio, Echo360, and Zoom. Instructors who want to learn how to use this software may contact ATC support via email at hub@wpi.edu.

B. User Roles and Access Management

A summary of User roles and their data access/control privileges in the LMS is provided below.

Course Role	Privileges
Teacher	The Teacher role has the highest level of privilege within a course site. Users in this role are able to control all aspects of the course through the Course Settings. Instructors and co-instructor(s) listed as a Instructor(s) of Record in the SIS has/have Teacher privileges by default. Instructors must enable ("publish") the LMS course site before it can be accessed by students. Instructors can access a Test Student account that emulates a student's perspective of the course site.
Teacher's Assistant (TA)	User can change nearly all aspects of the course through the Course Settings, except for Course Cartridge Import features. A TA cannot request that additional course access be granted to users outside of the SIS enrollment. A TA can access course content before it is "published" by the Teacher.
Course Builder	User can add content to the course through the Content areas, access Settings, and create Tests, Surveys and Question Banks from the Course Settings. Course Builders can see all of the course content except for the Grades area. This role is appropriate for a user to manage the course without having access to student grades. A course builder can still access the course if the course is unavailable to students.
Grader	User can access and edit all areas under Grades. Graders can also access Quizzes, Assignments, Discussions, and other tools that have been set up as graded. A Grader can access a course before it is "published".
PLA	User can access all Course Content, Assessments, Communication Areas, and Tools that are available to students. User has no access to Grades or Course Settings and does not show up in the gradebook. A PLA cannot access a course before it is "published".
Student	User can access all Course Content, Assessments, Communication Areas, and Tools that are available to students. A Student can see their own grades in the Grades area. Students do not have access to Course Settings. If the gradebook function is being used, students who are officially enrolled in a course may not have another role in that same LMS course site that enables their access to the course site gradebook. Students who are auditing a course must officially register the audit through the Registrar's Office, following which access to the LMS course site will be automatically provided.
Manually-Added Student	This role is similar to the "Student" role above but is not tied to the Student Information System so it is not removed when the SIS syncs up official course enrollments. This role is suitable for students auditing a course, making up an Incomplete during a subsequent offering, or for other course guests.
Observer	This role is intended for someone who is monitoring ("observing") a named account holder. In a K12 setting, a parent who is keeping track of assignments and grades of their minor. Observers have no access to the course settings. Areas within the course are made available to observers, but typically they can only view course materials and do not have access to submit tests and assessments, or have permission to post on discussion boards. Users in this role are not able to access and view course recordings.

Access to the LMS: Access to an LMS course site is limited only to the instructor(s) and to the students registered for the course through the SIS, unless access to the site is permitted by the Teacher, or their designee (e.g., a TA for the course). Guest Accounts can be created for testing purposes or for users who are not otherwise authorized to have official WPI computing accounts

or have no need for WPI resources accessed by a WPI computing account. To facilitate this, an e-mail request to hub@wpi.edu is required and must include the name and e-mail address of the person that needs a guest account, the course number, and the course role access level they need. Students may be restricted from accessing the LMS due to administrative holds. In such cases, the restriction may be overridden by the managing unit at the sole direction of the Registrar. In rare and emergent circumstances, such as the death of an instructor, access to an LMS course site may be temporarily provided to the Department Head/Program Director and/or their designees. Such emergent access:

1. Is intended to ensure the delivery of a course when the original instructor is unable to do so;
2. Must be requested by the Department Head / Program Director and approved by the Dean of the School;
3. Will be granted on a case-by-case basis for a duration not to exceed the term or semester for which the course is scheduled; and
4. Will not override intellectual property rights of the original instructor provided by the WPI Intellectual Property Policy.

Access to video lectures: Canvas Studio, Echo360, and Zoom have established software integrations with the LMS. Therefore, access to videos through these software systems is automatically controlled through the LMS, thereby ensuring that access is provided to registered students only. Access to videos through these systems may be further limited within the LMS by the Teacher.

C. User Support and System Maintenance Procedures

The Academic Technology Center offers consultative support in the form of trainings and troubleshooting support for all IT tools addressed in this policy. All requests for support for these tools should be sent via email to hub@wpi.edu. For Canvas and Canvas Studio, further technical support may be available through the vendor (Instructure) through the *Help* button in Canvas.

Vendors continually deliver software bug fixes and software upgrades. The managing unit reserves the right to perform upgrades or make new features available during the semester if there is a significant change or improvement to the performance of the tool. Users will be notified in advance if any disruption to the learning environment is expected.

The managing unit will notify Users of any planned outages of these tools that occur outside of the weekly downtime posted on the WPI Hub website. The managing unit will respond to unplanned outages to provide updates concerning the resumption of services as quickly as possible. The managing unit will oversee communication efforts to announce upgrades, and bug fixes when appropriate (e.g. when a bug is resolved or when there is a significant change to how a tool or feature is accessed/used).

LMS system administrators may use the "become" emulator tool with permission from the User, which allows them to enter any username and emulate that individual for troubleshooting purposes. This use is covered under the WPI Code of Conduct for IT Administrators.

D. Content Management, Retention and Backup

All software systems discussed in this policy retain data for certain durations of time described as follows.

IT Tool	Retention
Canvas and Canvas Studio	Course sites will be maintained for six academic years. Concluded courses include student assignments. Course retention policies will be re-evaluated any time a significant version change of the current LMS is installed or a different LMS is selected by WPI. The six-year retention duration applies specifically for LMS sites created for coursework. For all other special-purpose LMS sites that are not associated with a course – e.g., Faculty Governance Committee sites – retention will be determined on a case-by-case basis. Individuals with "Teacher" privileges of such special-purpose LMS sites (e.g., Committee Chairs) are responsible for ensuring appropriate retention, and should contact hub@wpi.edu for further information.
Echo360	Echo360 content will be maintained for six academic years from the date of recording. When a recording is copied to a subsequent course library, the clock restarts. (Note that in the case of public links being reused, there is no way to reset the clock each time the link is reused so best practice is to copy the recording to a new course library.) Videos older than six academic years cannot be retrieved when they are deleted in accordance with these retention practices. For all other special-purpose LMS sites that are not associated with a course, retention will be determined on a case-by-case basis.
Ensemble Video	No retention. WPI will cease to use Ensemble Video in July 2022.
Zoom	Zoom cloud recordings are stored in the Zoom cloud library for 100 days from the date of the recording. Zoom local recordings are managed by the User on their device.

Users are responsible for maintaining any additional backup storage of data beyond the retention durations described above. The managing unit is not responsible for keeping backups beyond the retention durations described above. Users should contact hub@wpi.edu for technical support on maintaining backups beyond the standard retention durations described above.

E. Copyright and Intellectual Property

In most instances, content on the LMS and other software systems discussed in this policy is subject to the WPI Intellectual Property Policy (WPI-IPP). Per the WPI-IPP, teaching and curriculum materials authored by faculty members including classroom lectures, seminars and presentations reduced by or for the author to written or other recorded form are considered intellectual property of the author(s). By consequence, classroom recordings, pre-recorded lectures, and virtual classroom recordings are intellectual property of the faculty member(s) who is/are the official instructors of record for a course. Exceptions, per the WPI-IPP, are: (i) developed as part of a WPI project, program or activity that is the subject of an external WPI agreement; (ii) developed within the scope of employment by non-faculty WPI Employees; or (iii) developed as part of a WPI- Commissioned project. In these cases, intellectual property is owned by WPI.

However, dissemination of such video lectures to anyone other than students registered in the course in which the video lectures were created ("original course") is subject to the following additional restriction for safeguarding privacy. If a classroom recording, whether on campus or virtual, is *created by* or *involves significant participation by* any person other than the instructor, then it is the instructor's responsibility to maintain written permission from that person to reuse or

share that video recording beyond the original course. The written permission should include a duration of time for which the permission is valid. The term "significant participation" should be understood to mean participation to an extent that allows easy identification of the other person.

Common examples of situations where the above restriction applies are as follows:

- A TA conducts a classroom session that is recorded.
- A student makes a presentation or otherwise participates in a classroom session that is recorded.
- A non-WPI-affiliated guest speaker delivers a lecture that is recorded.
- During a classroom lecture or other activity recorded by the instructor, there is significant participation from students or a TA.

The use of copyrighted material in any content processed by the LMS and other IT tools must comply with state and federal laws on copyright. Here, "content" refers to all data such as curriculum materials provided on the LMS by instructors, video lectures provided through any of the IT tools, and assignment or exam submissions made by students. Users must obtain and retain permission from the copyright holder if use of the copyrighted material is not allowed by fair use or if permission for use of proprietary materials is required.

For creating classroom recordings, whether on campus or virtual, permission must be obtained and recorded from any non-WPI-affiliated guest speakers or participants in the classroom. The non-WPI-affiliated guest speakers or participants must be made aware of the recording and of the intended use(s) of the recording.

Similar considerations should be made when creating other video recordings, i.e., written permission must be obtained from significant participants other than the author of the video recordings before dissemination of the video. An example of such other video recordings is:

- Students create a video recording for a course assignment, and the recording happens to inadvertently capture other participants who can be easily identified in the video.

F. User Responsibilities
Users are responsible for:

- Ensuring the   integrity and legality of the content uploaded to the LMS and other IT tools.
- Compliance with copyright laws, as discussed in the WPI Copyright Compliance Policy, for all content uploaded to the LMS and other IT tools.
- Obtaining permission from other participants in video recordings as discussed above.
- Ensuring that their recordings are properly transcribed and compliant with accessibility guidelines of the University.

G. Privacy
Video lectures created via classroom recordings, whether on campus or virtual, are intended for viewing through the LMS by students enrolled in that course. The same privacy considerations

that would apply in a physical classroom, particularly to student work, apply to classroom recordings. If any individual disseminates recorded student presentations, group discussions, or seminar classes beyond the original course, then that individual is responsible for obtaining consent as discussed in Section IV-E (Copyright and Intellectual Property). Instructors are not required to obtain student consent when broadcasting their own image and content, when no student participation is recorded or when insignificant student participation is recorded or the broadcast is directed to a defined course.

Personal data is stored and managed in accordance with WPI Data Classification and Usage Policy

Instructors may include a statement in the course syllabus that explicitly informs students of the potential for classroom recording and makes students aware of the ways in which the recorded material may be made available to other students.

H. Accessibility
All video lectures disseminated through the LMS or other IT tools should be transcribed or captioned to align with the University's guidelines for accessibility. Instructors will be notified by the Office of Accessibility Services (OAS) when specific situations require accessible video lectures. The video recording / dissemination tools described in this policy, namely, Canvas Studio, Echo 360, and Zoom, all provide automatic captioning at no cost to the user. Whenever possible, captioning will be turned on by default in these tools, i.e., the user will have to take no action to provide captioning. For those unfamiliar with the tools, online documentation is available through the Academic Technology Center.

V. List of Related Policies

- WPI Acceptable Use Policy [https://www.wpi.edu/about/policies/acceptable-use]
- WPI Academic Policies and Procedures [https://www.wpi.edu/offices/registrar/policies-procedures]
- WPI Intellectual Property Policy [https://www.wpi.edu/about/policies/intellectual-property]
- WPI Access to User Electronic Information Policy [https://www.wpi.edu/sites/default/files/2020/09/18/FINAL_AccesstoUserElectronicInformation_9.16.2020%28CLEAN%29.pdf]
- WPI Data Classification & Usage Policy [https://www.wpi.edu/sites/default/files/Data_Classification_and_Usage_Policy.pdf]
- WPI Accessibility Guidelines & Resources for Faculty [https://www.wpi.edu/academics/faculty/accessibility-services/accessibility-guidelines-resources]
- WPI Confidentiality Policy https://www.wpi.edu/sites/default/files/inline-image/Offices/Information-Security/Confidentiality%20Policy.pdf
- WPI Copyright Compliance Policy [https://www.wpi.edu/about/policies/copyright-compliance]

- US Department of Education Family Educational Rights and Privacy Act (FERPA) [https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html]
- US Copyright Act U.S.C. 101-810: Technology, Education, and Copyright Harmonization (TEACH) Act [https://www.copyright.gov/docs/regstat031301.html]

V. **Revision History**

- Established by the WPI Faculty on May 10, 2022.

Rationale:

In the Faculty Meeting on May 8, 2018, the WPI Faculty approved the Learning Management System (LMS) Policy regarding the use of the Canvas LMS. In recent years, the use of videos in instruction has increased, especially for remote learning. The creation, storage, and dissemination of videos requires significant Information Technology (IT) resources and there is a need to establish a new policy regarding IT support for video lectures. Such a policy would have significant overlaps with the LMS Policy, e.g., regarding copyright, intellectual property, technical support, and maintenance procedures. The proposed Policy merges the existing LMS Policy with new provisions of IT support for video lectures.

Date: May 10, 2022
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to allow double-counting in the BS/MS program within five years of completing the BS degree at WPI

Motion: The Committee on Graduate Studies and Research recommends, and I move that the BS/MS program and application process be broadened by allowing WPI alumni to pursue the MS degree, with the double counting option, within five years of completing the BS degree.

Description of Proposed Changes to the WPI Graduate Catalog:
Pages 6-7 of AY 2021-22 graduate catalog:
(Additions in *italics*, deletions ~~struck through~~.)

Combined Bachelor/Master's Program
Introduction
WPI undergraduates *and WPI alumni* can begin work on a graduate degree by enrolling in a combined Bachelor's/Master's program. This accelerated course of study allows students to obtain an M.S. degree after only five years of full-time work (i.e., typically one year after completion of the B.S.). Students often obtain the B.S. and M.S. in the same field or department, but with careful planning some students complete the combined B.S./M.S. program in two different fields. Students are encouraged to review the various options available for pursuing the combined B.S./M.S. program within a specific department or program by visiting the relevant section within the Graduate Catalog. (Throughout this section, "M.S." will be used to refer to all Master's-level degrees; most students who complete the combined program obtain the M.S.).

Planning Your Program
Because B.S./M.S. students use some approved courses to satisfy the requirements of both degrees simultaneously, it is crucial for them to plan their curriculum early in their undergraduate career.
The specific course and MQP requirements for a B.S./M.S. program are determined individually, so students should consult with their own advisor as well as the graduate coordinator in the department in which they plan to pursue their M.S. degree early in their Junior year. This consultation, or series of consultations, should produce a slate of approved undergraduate courses that will be used for graduate credit. ~~Sometimes the instructors of these courses will ask B.S./M.S. students to complete additional work, or will otherwise hold them to higher standards of achievement.~~ Note: no undergraduate credit may be counted toward a graduate business degree.

A student's advisor and graduate coordinator will also determine what role the MQP will play in the B.S./M.S. program. Sometimes the MQP provides a foundation for a thesis. In cases where the B.S. and M.S. are not awarded in the same field, the MQP usually relates to the graduate program's discipline.

Once the specific course and MQP requirements have been established, students complete a Course Selection Form which is submitted to the relevant department(s) for approval. This written agreement constitutes the set of conditions that must be met for a student to complete the B.S./M.S. program. They are a plan for completing the requirements for both degrees and they will not supersede or otherwise obviate departmental and university-wide requirements for either degree. ~~The completed, signed form must be submitted to the Registrar before the student may matriculate in the combined program.~~

How to Apply
Students almost always apply for admission to the B.S./M.S. program in their Junior year, typically after they have established their curriculum and other program requirements and completed the Course Selection Form with their faculty advisors. *WPI alumni can apply to the B.S./M.S. program within five years of completion of their WPI BS degree.* Applications are submitted to the Office of Graduate Admissions and are processed with all other graduate applications. Once a decision has been reached, the Office of Graduate Admissions will notify the ~~student~~ *applicant*, usually within six weeks of receiving the application.

Program Requirements

Only ~~registered~~ WPI undergraduates *and WPI alumni within five years of completion of their BS degree* may apply for admission to the combined B.S./M.S. programs. Students are considered undergraduates, no matter what courses they have completed, until they have met all of the requirements for the Bachelor's degree. In order to receive the B.S. and the M.S., all of the requirements for both degrees must be completed.

In most departments a student may take up to four years of uninterrupted study to complete the Master's portion of the B.S./M.S. program. There are exceptions, however, so students are advised to discuss their timetable with the appropriate advisor or graduate coordinator. Students who stop registering for classes for an extended length of time may be asked to petition the Committee for Graduate Studies and Research (CGSR) to continue their program. *Prior to graduation, the student must submit a form to the Registrar listing which courses, completed or in progress, will be counted towards the MS degree.*

Credit Equivalence and Distribution

No more than 40% of the credit hours required for the Master's degree, and which otherwise meet the requirements for each degree, may be used to satisfy the requirements for both degrees. In some departments, students may not double-count more than 30% of their graduate credits. Consult the department entries in the graduate catalog for the requirements of your program. Double-counted courses are recorded on the transcript using the credit hours/units and grades appropriate at the graduate or undergraduate levels. For students in the combined B.S./M.S. program, approved undergraduate courses are assigned graduate credit with a conversion rate of 1/3 WPI undergraduate unit = 2 graduate credit hours, while graduate courses applied toward the undergraduate degree are awarded undergraduate units with a conversion rate of 1 graduate credit hour = 1/6 undergraduate unit.

Rationale:

This modification will allow additional revenue stream for WPI by allowing students that opted to work upon the completion of their BS degree, to return to WPI to complete the MS degree. Many students would like to pursue the MS degree but due to various reasons must enter the workplace. These students will return to WPI for their MS if they are incentivized by allowing them the double-counting option for their MS degree. Allowing BS students to enter the MS program with double counting within five years would be a positive change for WPI undergraduate students. Especially in the current climate, having time to "catch one's breath" could be a significant benefit for those WPI students who wish to pursue an MS but need time to address personal needs before doing so. Without this 5-year grace period for the double counting, there may be internal and/or external pressure to take advantage of the BS/MS, putting students in a position that is negative for their mental health. Additionally, the financial burden placed on some families by COVID may place prospective dual degree students in a position where they are unable to pursue the program without undue hardship. This allows recovery time in this regard as well.

Impact on Degree Requirements: The broadening of the time extension will not affect WPI students.

Resources and Anticipated Instructors: No new resources are required.

Implementation Date: Implementation date for this action is the 2022-2023 academic year.

Appendix 1

Consent Agenda Items

(see next page)

Date: May 10, 2022
To: WPI Faculty
From: Committee on Academic Operations (Prof. Titova, Chair)
Re: Motion to modify minors in Social Science

Motion: On behalf of the Psychological & Cognitive Sciences Program and the Department of Social Science & Policy Studies, the Committee on Academic Operations recommends and I move to modify the catalog description of "Minors in Social Science", as described below.

Description of the proposed modifications:
(additions are ==highlighted==; deletions are ~~struckthrough~~)

From p. 214 of the AY21/22 undergraduate catalog:

MINORS in SOCIAL SCIENCE
A Social Science Minor is available in any of the following disciplines:
Economics
Sociology
Political Science and Law
~~Psychology~~
System Dynamics
Social Science

A minor in the Social Sciences consists of 2 units of academic activity satisfying the following conditions:

1. **Foundations**

Introductory level courses in any one or two ==of the following== social science disciplines ~~taught at WPI~~: economics (ECON), sociology (SOC), political science (and law) (GOV), ~~psychology (PSY),~~ and system dynamics (SD). Introductory courses are identified by the first digit of the course number, which must be a 1. The second digit of the course number indicates the discipline (1–economics, 2–sociology, 3–political science and law, ~~4–psychology,~~ and 5–system dynamics).

2. **Applied Courses (At least 1 unit)**

Three or more higher level courses in the same social science discipline as the foundation courses, which involve applications or extensions of the material covered in the introductory courses and list the introductory courses as recommended background. High level courses have either a 2, 3, or 4 as the first digit of the course number. The capstone experience will consist of a paper in the last applied course taken. The paper must draw upon and integrate material covered in the previous courses. An IQP may provide the capstone experience and substitute for the last applied course provided that the IQP was advised or co-advised by a member of the Social Science & Policy Studies department, and contains appropriate social science analysis.

3.

If five or more of the six 1/3 units required for the minor are in a single social science discipline, the title of the minor will be "Minor" in that discipline.* Otherwise the title of the minor will be "Minor in Social Science." Examples of minor programs in economics, sociology, political science (and law), ~~psychology,~~ system dynamics and interdisciplinary social science are available at the SS & PS department office. The

course selected for an interdisciplinary social science minor should follow an identifiable theme, such as the relationship between technology and society or social, political, economic or environmental policies. Students taking minors in the social sciences are expected to designate a member of the SS & PS department as their SS minor advisor, who will assist them in preparing a program that meets the requirements of the minor. Students can obtain assistance at the SS & PS departmental office in designating an advisor. Students completing any major in the Social Science and Policy Studies Department may not also complete a minor in social sciences.

*In designating sociology the minor, the course PSY 1402: Social Psychology, can be counted as one of the five courses required in Sociology.

In designating the economics minor, at least 3 of the 5 required courses must be chosen from among the following four theory courses:
ECON 1110 Introductory Microeconomics;
ECON 1120 Introductory Macroeconomics;
ECON 2210 Intermediate Microeconomics; and
ECON 2120 Intermediate Macroeconomics.

Rationale:
Revising the catalog language for the general Social Science Minor as outlined above will ensure that there is only one set of rules for completing the Psychology Minor while preserving the existing options for students to obtain minors in other social science disciplines.

Resource Needs: No new resources are required.

Impact on Distribution Requirements and Other Courses: Change in distribution requirements described in the motion.

Implementation Date: Academic year 2022-2023.

Contact: Prof. Jeanine Skorinko

Date: May 10, 2022
To: WPI Faculty
From: Committee on Academic Operations (Prof. Titova, Chair)
Re: Motion to establish a minor in Psychological Science

Motion: On behalf of the Psychological & Cognitive Sciences Program and the Department of Social Science & Policy Studies, the Committee on Academic Operations recommends and I move that a Minor in Psychological Science be established, as described below.

Description of the Proposed Minor in Psychological Science:

The minor in Psychological Science allows students to extend their study of Psychology beyond the Social Sciences Requirement without majoring in Psychological Science. Students who, for personal or career purposes, want to develop an understanding of the science of human thought and behavior should consider a minor in psychology. The minor balances breadth and depth in psychology and requires a capstone research experience. Students interested in declaring a minor in Psychological Science may consult any of the following core members of the Psychological & Cognitive Sciences program: Prof. James Doyle, Prof. Richard Lopez, Prof. Erin Ottmar, Prof. Angela Rodriguez, Prof. Stacy Shaw, Prof. Jeanine Skorinko.

The Psychological Science minor consists of a total of two units of work in psychology distributed as follows:

1. Foundations (2/3 unit)

At least two foundational courses from the following list:
PSY 1400 Introduction to Psychological Science
PSY 1401 Cognitive Psychology
PSY 1402 Social Psychology
PSY 1404 Developmental Psychology
PSY 1412 Mental Health
PSY 1504 Strategies for Improving Cognitive Skills
PSY 1800: Special Topics in Psychological Science (when available)

2. Advanced courses (2/3 unit)

At least two courses from the following list:

PSY 2401 The Psychology of Education
PSY 2406 Cross Cultural Psychology
PSY 2407 Psychology of Gender
PSY 2408 Health Psychology
PSY 2410 School Psychology
ENV/PSY 2500 Psychology for Sustainability
MU/PSY 2501 Music and Mind
PSY 2504 Human Sexuality
PSY 2800, 3800, or 4800 Special Topics in Psychological Science

GOV/PSY 3000 Psychology and Law
ID 3100 Teaching Methods in Mathematics and Science
PSY4110 Psychophysiology
NEU 501 Neuroscience
PSY/SEME 501 Foundations of the Learning Sciences

3. Capstone research experience (1/3 unit)
The capstone research experience may be satisfied by successful completion of one of the following three courses that include a significant research project among their requirements:

PSY 3400 Survey Design and Methodology
PSY 3500 Experimental Design and Analysis
PSY 4110 Psychophysiology

Alternatively, the capstone research experience may be satisfied by conducting independent research in a psychology laboratory under the direction of a Psychological Science faculty member. Independent research projects are registered under one of the following designations:

PSY 2900 Introduction to Research in Psychology
PSY 3900 Research in Psychological Science
PSY 4900 Advanced Research in Psychological Science

4. Free elective (1/3 unit)
The sixth course may be chosen from courses approved for any of the above categories: Foundations, Advanced Courses, or Capstone Research Experiences.

Note: One psychology related course from another discipline may count under Free Elective with the permission of the Psychological and Cognitive Sciences Program Review Committee.

Rationale:
WPI students have been receiving the degree designation of Minor in Psychology since AY97/98. However, the current rules that govern the awarding of the Psychology Minor are rather unique compared with other minor programs at WPI. These rules appear on p. 214 of the AY21/22 undergraduate catalog and are reproduced later in this proposal. They describe a mechanism by which a minor in social science may be called by a disciplinary title.

In the years since this mechanism for earning a Psychology Minor was established, the Psychological & Cognitive Sciences program has grown significantly, going from 1 to 6 core faculty and from offering 3 to 20 different undergraduate courses. Psychological and Cognitive Science faculty also now serve as core members of interdisciplinary graduate programs in Learning Sciences & Technologies and Neuroscience. There are currently 44 Psychological Science majors and 22 Psychology minors matriculating at WPI.

We believe WPI students interested in pursuing a Minor in Psychological Science will be better served going forward by defining a stand alone minor with separate requirements from the general Social Science Minor, as is currently the case for the Minor in Environmental & Sustainability Studies and the Minor in Law & Technology.

Compared with the existing approach to the Psychology Minor, the new minor provides a stronger and more focused program, increasing the value of the degree designation for students. It also provides clearer guidance for students by better defining their options for meeting the Minor requirements. In addition, the capstone requirement is both strengthened by identifying which specific courses meet the capstone requirements and broadened by including the laboratory research option.

Rather than being hidden in the fine print of the catalog, the new minor will also be more visible to students and improve our ability communicate the variety of opportunities available to students to engage in psychology in course work and laboratory research.

Resource Needs: No new resources are required.

Impact on Distribution Requirements and Other Courses: Change in distribution requirements described in the motion.

Implementation Date: Academic year 2022-2023.

Contact: Prof. Jeanine Skorinko

Date: May 10, 2022
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to remove the graduate certificate in Health Systems Innovation

Motion: On behalf of the School of Business, the Committee on Graduate Studies and Research recommends, and I move that the graduate certificate in Health Systems Innovation be removed, as described below.

Description of Proposed Modifications to Graduate Catalog:
(Text to be deleted struckthrough)

Graduate Certificates
Graduate business certificates are designed for technical and business professionals seeking focused, in-depth knowledge within a specific area of technology management. Certificates include: Financial Technology; Health Systems Innovation; Information Security Management; Information Technology; Innovation with User Experience; Supply Chain Analytics; and Supply Chain Essentials. Each certificate consists of 4 courses, which may be double-counted toward a related master's degree. Students may also customize their own graduate business certificate. For more information, please see http://business.wpi.edu/+certificates

The current certificate:
The School of Business has a 12-credit graduate certificate in Health Systems Innovation as follows:

Two Required Courses (6 credits):

1) BUS 545 Introduction to Health Systems
2) OIE 556 Health Systems Modeling and Improvement

Select Two Electives from the following (6 credits):

1) FIN 500 Financial Management
2) MIS 500: Innovating with Information Systems
3) MIS 584 Business Intelligence
4) OBC 505 Teaming and Organizing for Innovation
5) OIE 501 Operations Management
6) OIE 542 Risk Management and Decision Analysis
7) OIE 544 Supply Chain Analysis and Design
8) OIE 552 Modeling and Optimizing Processes
9) OIE 558 Designing and Managing Lean Six Sigma Processes
10) OIE 559 Advanced Prescriptive Analytics: From Data to Impact
11) DS 501 Introduction to Data Science
12) SYS 501 Concepts of Systems Engineering

We have not offered either of the two required courses, BUS545 and OIE556, in several years due to lack of student interest and therefore are also dropping them. We no longer have the faculty

bandwidth to offer either course. We have removed the certificate from our website. Graduate certificates are not listed by name in the graduate catalog.

Rationale:

We do not have the student interest or the faculty resources to offer the two required courses, BUS545 and OIE556, within the Health Systems Innovation certificate. We have discussed this motion with ACE and they do not have an audience for this certificate and support this motion.

Impact on Degree Requirements: Dropping the Health Systems Innovation graduate certificate will have no impact on any students' degree requirements.

Implementation Date: Implementation date for this action is the 2022-2023 academic year.

Date: May 10, 2022
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to change course title and description for MKT 565 Digital Marketing and MKT 569 Product and Brand Management

Motion: On behalf of the WPI Business School, the Committee on Graduate Studies and Research recommends, and I move that course titles and course descriptions for MKT 565 and MKT 569 be modified, as described below.

Description of the proposed modifications:

Current course titles and descriptions:

MKT 565 *Digital Marketing* (3 credits)
The rapid evolution of technology has led to increasingly well-informed buyers who are connected, communicative, and more in control than ever. This course discusses the theory and practice of digital marketing and its role in building relationships and, ultimately, driving sales. It examines digital technologies and their impact on business models, the marketing mix, branding, communication strategies, and distribution channels. Emphasis is placed on contemporary topics that face today's marketing managers – including online lead generation, search, social networking, and ecommerce – and their application within a comprehensive, integrated digital marketing strategy. The course considers the opportunities and challenges faced in business-to-consumer and business-to-business markets. It covers latest research, current practices, and hands-on project work.

MKT 569 *Product and Brand Management* (3 credits)
The conversion of technology into new products requires an understanding of how to develop a meaningful value proposition and integrate the development of a product with a marketing strategy that creates brand equity. This course will focus on the management of products, the implications of other marketing decisions on product and brand management, the management of product lines within the organization, including introduction, growth, and market exit. (Prerequisite: MKT 500 or equivalent content, or consent of instructor.)

Revised course titles and descriptions:

MKT 565 *Digital and Social Media Marketing* (3 credits)
The rapid evolution of technology has led to increasingly well-informed buyers who are connected, communicative, and more in control than ever. This course discusses digital technologies and their impact on the marketing mix, branding, communication strategies, and distribution channels. Emphasis is placed on contemporary topics that face today's marketing managers – with a focus on how social media can be employed to build brands, conduct business, support causes, rally the masses, and create and maintain customer relationships. Students who have previously taken MKT 565 (Digital Marketing) or MKT 598 (Special Topics: Social Media Marketing) cannot earn credit for taking MKT 565 (Digital and Social Media Marketing).

MKT 569 *Product Management* (3 credits)
A successful product management process involves vision, strategy, and product development and integrating these with an effective go-to-market strategy. In this project-based course, students will develop knowledge of product management concepts and frameworks, learn to work with product management tools, and build the skills necessary to become effective product managers.

Rationale:
The Business School currently offers MKT 565 (Digital Marketing) and an experimental course, MKT 598 (Social Media Marketing). Given that we do not offer the MS (Marketing and Innovation) degree and given the current diverse student audience enrolling in our graduate programs, it is not efficient to offer two separate specialized courses. So, instead of having two separate courses with few students, it would be efficient to merge the two together. In addition, digital marketing includes social media marketing and students are more interested in the social media marketing aspects of digital marketing. Therefore, the course is re-designed to offer an introduction to digital marketing and dive deeper in social media marketing.

The current students who enroll in MKT 569 are professionals and executives working in STEM roles and who aspire to shift careers in the field of product management. Keeping in mind the career interest of students, product management is the core focus of this course. Brand management is more marketing-focused and is covered as a part of one module in the course. So, it does not add any value to the course by being offered in the title and description. Therefore, the new title and description clearly explain what is covered in the course which is designed with students' career interest in mind. In addition, no prerequisites are required for this course.

Impact on Degree Requirements: This change will not have any such impacts.

Resources and Anticipated Instructors: No new resources are needed.

Implementation Date: Implementation date for this action is the 2022-23 academic year.

Date: May 10, 2022
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Korkin, Chair)
Re: Motion to clarify and modify requirements for M.S. degree in ECE

Motion: On behalf of the ECE department, the Committee on Graduate Studies and Research recommends and I move that the requirements for the M.S. degree in ECE be clarified and modified as described below.

Description of Proposed Modifications to Graduate Catalog:

Current description of the Non-Thesis M.S. Option in ECE:
(appearing in the first column of Page 100 of the AY 2021-22 catalog):

Although the thesis is optional for M.S. ECE students not financially supported by the department, and there is no thesis option available for M.Eng. ECE or M.Eng. PSE students, all M.Eng. and M.S. students are encouraged to include a research component in their graduate program. A directed research project, registered under the designation ECE 598, involves a minimum of 3 credit hours of work under the supervision of a faculty member. The task is limited to a well-defined goal. Note that the Graduate Program committee will not allow credit received under the thesis designation (ECE 599) to be applied toward an M.Eng. ECE degree, M.Eng. PSE degree, or non-thesis M.S. ECE degree.

Proposed description of the Non-Thesis M.S. Option in ECE:

Although the thesis is optional for M.S. ECE students not financially supported by the department, and there is no thesis option available for M.Eng. ECE or M.Eng. PSE students, all M.Eng. and M.S. students are encouraged (but not required) to include a research component in their graduate program. A directed research project, registered under the designation ECE 598, provides an opportunity to conduct focused research under the direct supervision of an ECE faculty member. Credits received under the directed research designation (ECE 598) can be used to satisfy the M.Eng. ECE, M.Eng. PSE, and M.S. ECE degree requirements with a grade of C or better. Note that credit received under the thesis designation (ECE 599) may not be applied toward an M.Eng. ECE degree, M.Eng. PSE degree, or non-thesis M.S. ECE degree.

Rationale:
This change will clarify the requirements of the non-thesis M.S. ECE degree as follows:

- Makes it clear that a directed research project is not required for an MS or MEng.
- Avoids putting a minimum credit requirement on a directed research experience, thus providing more flexibility to students who pursue directed research opportunities in addition to coursework.
- Makes it clear that directed research credits count toward an MS or MEng degree but thesis credits do not count if the student is doing an MEng or non-thesis MS.

Impact on Degree Requirements: None

Resources and Anticipated Instructors: None

Implementation Date: Implementation date for this action is the 2022-2023 academic year.

Appendix 2

DRAFT Resolution Calling on
Worcester Polytechnic Institute to Divest from Fossil Fuels

(see next page)

DRAFT Resolution Calling on

Worcester Polytechnic Institute to Divest from Fossil Fuels

Sponsor: The Worcester Polytechnic Institute Faculty

Whereas climate change is a global crisis that is [a paramount threat](#) to the lives and livelihoods of current and future generations necessitating bold, immediate action;

Whereas the Intergovernmental Panel on Climate Change [stated](#) that global greenhouse gas emissions, the majority of which are produced by the combustion of fossil fuels, must be reduced to net zero by 2050 to avoid the worst impacts of climate change;

> *Beyond simply exacerbating natural disasters and creating unprecedented displacement of vulnerable people, climate change is one of the leading causes of the mass species extinction crisis and mounting biodiversity losses, and [poses a substantial threat](#) to global food supplies, to world peace, and to the global economy*

Whereas disease pandemics, like that of COVID-19, will likely occur [not only more frequently,](#) but also with [more severity,](#) in part as a result of climate change;
These two types of catastrophe will inevitably compound and collectively hinder effective response to either of them.

Whereas historically, institutions of higher education, and particularly the nation's most visible and influential institutions, have been effective conduits for social change on issues of moral uncertainty;

> *This is exemplified through [rejection of the tobacco industry](#) (for which the discourse closely parallels that of the fossil fuel industry) in the 1990's, and [South African apartheid](#) before that. Experts acknowledge that [divestment at scale is an effective way to combat climate change](#);*

Whereas investing in the fossil fuel industry exacerbates the extreme social and racial inequalities our institution strives to help solve.

> *Climate change perpetuates inequality between developed and developing nations by placing most of its consequence on nations that have contributed the least. Even [within developed nations](#), climate change [aggravates existing class and racial inequities](#), as evidenced in part through respiratory illnesses and [cancers succeeding the building of refineries](#) and power plants.*

Whereas the fossil fuel industry bears significant responsibility for climate change-- 100 companies are responsible for the emission of roughly [71% of the world's carbon dioxide](#)-- the most prevalent greenhouse gas, since anthropogenic climate change was officially recognized;

Whereas the fossil fuel industry is using the COVID-19 crisis [to successfully lobby for](#) environmental regulation rollbacks and multi-billion dollar government bailouts, on top of the trillions of dollars in taxpayer money they already receive;

> *While the fossil fuel industry continues profiteering in the midst of this unprecedented crisis, [there has been less stimulus](#) offered for renewable energy sources.*

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(cont'd)

Whereas despite these immense harms, the fossil fuel industry has led a concerted, multi-decadal campaign to misinform the public, fund junk science, and sow doubt about the urgent reality of climate change;

These disinformation campaigns mimic those of the tobacco industry (which saw widespread divestment on moral grounds) and are in direct opposition to our institution's values of turning knowledge into action, the betterment of society, and innovation.

Whereas student body presidents from the Big 10 Conference and the Ivy League and diverse faculties from Harvard University to the University of South Carolina each passed a unanimous resolution to endorse divestment of their universities' endowment funds from fossil fuels in response to the tremendous harms that these companies pose to student and alumni wellbeing;

Whereas Worcester Polytechnic Institute emphasizes student wellbeing as a major pillar of its most recent strategic plan, Lead with Purpose, while describing climate change as a major challenge to the planet. Worcester Polytechnic Institute can support both initiatives by joining other universities in their decision to divest;

Whereas a university, known for its ability to "think globally, act locally," must consider the implications of its own local actions within a global context and climate crisis;

Whereas coursework, students projects, and student/faculty research at Worcester Polytechnic Institute are dedicated to sustainability, the university cannot truly claim to be acting with environmental interests in mind while simultaneously investing in the fossil fuel industry;

Whereas Worcester Polytechnic Institute demonstrated a resolve to evaluate its financial practices by signing onto the Principles for Responsible Investing (PRI), a United Nations-supported framework and reporting tool for responsibly managing investments in September 2021;

Worcester Polytechnic Institute agreed to abide by six principles to include environmental, social, and governance issues in investment analysis and decision making, as well as being active owners in practice.

Whereas the Principles for Responsible Investing discuss that divestment "communicate[s] to the wider market that the investor believes the targeted company's long-term strategy is likely to remain misaligned with relevant sustainability performance thresholds";

Fossil fuel companies contribute significantly to the climate crisis and are contraindicated with an ecologically sustainable economy. Worcester Polytechnic Institute must divest from fossil fuel companies and reinvest in companies that support a renewable economy. Making no change and remaining invested in fossil fuels cannot meet the standards agreed upon by this university.

Whereas Worcester Polytechnic Institute has been endowed with $505 million in support of advancing technical progress;

Fossil fuel investments do not demonstrate scientific progress, but rather glue us to the energy systems of 19th century industrialization. New investments in renewable energy and sustainable technologies are necessary to truly uphold our commitment to technical progress.

Whereas divesting is a crucial component of maintaining sustainable long-term financial growth of endowment funds;

In fact, [Brown University has committed to divestment](), asserting "The decision to halt investments in fossil fuel extraction companies reflects the view that, as the world shifts to sustainable energy sources, investments in fossil fuels carry too much long-term financial risk."

Whereas in addition to the clear moral imperative upon which Worcester Polytechnic Institute must act, it is [increasingly financially irresponsible]() to invest in the fossil fuel energy sector;

[Investment experts](), from academics to BlackRock to [CNBC's Jim Cramer](), emphasize that fossil fuel investments are "in the death knell phase" and are becoming increasingly unappealing as an asset, in part because of social movements like the push for divestment.

Whereas for reasons both moral and financial, institutions across the world are beginning to act on divestment from fossil fuels;

Peer universities like the [University of California system](), among other schools, have committed to divest on [solely financial grounds](), while others like [Georgetown University]() have made the same decision as a part of their commitment to sustainability. Likewise, top universities have reaffirmed their core values through divesting, such has [Harvard University's decision to divest]() based on their responsibility "as fiduciaries to make long-term investment decisions that support our teaching and research mission." These universities are among [a growing list]() of institutions acting on divestment, including but not limited to [US cities](), philanthropies like the [Rockefeller Foundation]() (whose wealth stems from fossil fuels), [the Vatican](), and even [entire countries]().

Whereas campaigns by the Students for a Just and Stable Future (2012-2014) and divestWPI (2019-present) have demonstrated students' [support in favor of divestment through letters]() and discussion with administration, in conjunction with faculty support;

The issue has not been acted upon publicly while other universities join the list of divested colleges routinely.

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Worcester Polytechnic Institute to Divest from Fossil Fuels

Whereas divesting is both a commitment and a process;

Divesting Worcester Polytechnic Institute's endowment will take a few short years in practice; however, publicly committing to developing a divestment plan and timeline will not. Making the promise to implement a cleaner investment strategy would be the first step along the road to a better future.

Whereas we, as educators, taxpayers, and citizens of the world, whose communities are already feeling the impacts of climate change, and whose future is in jeopardy, feel both a responsibility and a right to demand that our university does better—to demand that our institution is not complicit in the intentional harms of fossil fuel companies; and

With our peers already suffering the plights of drought-induced [forest fires](), [civil unrest](), [displacement due to rising sea levels](), and [urban pollution](), we feel compelled to call upon our university to take responsibility for the well being of their constituents and lead the nation and the world towards a brighter future.

Whereas given the institutional power we wield, the corruption and societal negligence displayed by fossil fuel companies, and the unparalleled havoc that the climate crisis promises to deliver;
now, therefore, be it

Resolved, that the Worcester Polytechnic Institute Faculty:

1. Acknowledges the severity of climate change, and further, the need for swift action to prevent the earth's average temperatures from warming more than 1.5 °C to ensure a habitable future;

2. Hereby advocates that Worcester Polytechnic Institute commits to ceasing all new investments in the fossil fuel industry (as defined below) via a public declaration made in FY2023**;**

3. Calls on the leadership of Worcester Polytechnic Institute to commit to creating a divestment plan in FY2023, with full divestment of endowment funds from the fossil fuel industry by FY2026 at the latest;

4. Calls on the Division of Finance & Operations to develop a plan for pursuing the highest possible ratings under the Principles for Responsible Investment, with annual communications on the fulfillment of the plan and current ratings to the Student Government Association and the Green Team

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(cont'd)

Definition of Fossil Fuel Divestment:

While there is no universally accepted definition for what it means to be divested from fossil fuels, in alignment with guidelines outlined by 350.org, we believe that a fossil fuel free portfolio includes but is not limited to:

- No investments (direct or indirect) in any of the top 200 fossil fuel companies by size of reserves.
- No investments (direct or indirect) in any company that explores for, extracts, processes, refines, or transmits coal, oil, and gas.
- No investments (direct or indirect) in any utilities whose primary business function is to burn fossil fuels to produce electricity.

For more information regarding carbon risk and fossil fuel divestment, explore this comprehensive list of resources compiled by the Intentional Endowments Network and this guide to Fossil-Free Investing by Trillium Asset Management.

For inquiries, reach out to gr-divestWPI@wpi.edu