

WORCESTER POLYTECHNIC INSTITUTE
October 16, 2015

To: The WPI Faculty
From: M. W. Richman
Secretary of the Faculty

The second Faculty meeting of the 2015-2016 academic year will be held on **Friday, October 16, 2015** at 11:00 a.m. in **Olin Hall 107**, with refreshments at 10:45.

1. Call to Order M. Richman
 - Consideration of the Consent Agenda
2. Opening Announcements M. Richman
3. Provost's Remarks B. Bursten
4. Committee Business R. Lindeman
 - Committee on Academic Operations (CAO)
 - October 2015 Undergraduate Student Graduation List
 - Committee on Graduate Studies and Research (CGSR)
 - October 2015 Graduate Student Graduation List
5. Special Report (for Open Discussion) B. Bursten
 - The Provost's Vision of the Dean Structure at WPI
6. Committee Reports (for Open Discussion) D. Spanagel
 - Committee on Administrative and Financial Policy (FAP)
 - How is FAP Evolving Under Our New Administration?
7. Old Business
8. New Business
9. Closing Announcements
10. Adjourn

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WORCESTER POLYTECHNIC INSTITUTE

Faculty Meeting Minutes

September 8, 2015

Summary:

1. Call to Order
2. Welcome
3. President's Remarks
4. Provost's Remarks
5. Introduction of New Faculty Members
6. Closing Announcements
7. Adjournment

Detail:

1. Call to Order

The first meeting of the 2015-2016 academic year was called to order at 3:20pm in Olin 107 by Secretary of the Faculty, **Prof. Richman** (ME). The consent agenda, including the minutes of the May 13, 2015 Faculty meeting were approved as distributed.

2. Welcome

Prof. Richman (SOF, ME) thanked Prof. Sullivan for his service as Secretary of the Faculty and Prof. Rissmiller for his service as Parliamentarian for the past three years. He also thanked Prof. Hanlan for agreeing to serve as Parliamentarian for 2015-16 and Prof. Vassallo for agreeing to sit in for Prof. Hanlan while he is away in D-term.

Prof. Richman provided an informal list of topics that he believed might be suitable for open discussion at future meetings: WPI's Strategic Plan and Implementation; WPI's research goals and their institutional implications; achieving a realistic balance between teaching and research activities; the effect on WPI of the disparity between the rapid growth of the student population and the slower growth of the tenured and tenure track Faculty; the proper role and placement of Corporate and Professional Education; the role of on-line education (independent of CPE). Prof. Richman also made the point that even the "regular business" conducted at Faculty meetings over the past several years included putting in place our newest signature academic graduate and undergraduate programs. **(See Addendum #1 attached to the file copy of these minutes.)**

Prof. Richman good naturedly suggested that an effective way to learn the WPI culture was to subscribe to potpourri@wpi.edu and contrasted transparency in the President's Office to that in Faculty Governance Office.

3. President's Remarks

Pres. Leshin welcomed all new faculty members, administrators, and staff members to WPI. She distributed an overview of items to be implemented as part of the strategic plan and welcomed further discussion related to the strategic plan. Pres. Leshin recognized **Kristin Tichenor** (Senior VP) to describe the incoming first year class: 1090 students (slightly over the 1078 target); 3.84 GPA (average); 536 had 4.0 GPA's; 13 Merit Scholars; 5 National Hispanic Recognition Scholars; 33 percent women (366, in all); 151 students of color; 37 states and 40 countries represented; 165 legacy students; about 20 percent first generation college students. In addition, there are 675 new graduate students including 9 funded students with distinction (i.e. Fulbright scholars, etc.), with gains in Robotics, Business and ECE. **Pres. Leshin** anticipated that next year's incoming class size will be about the same as it was this year.

Pres. Leshin announced that May 2016 graduation will be split into two ceremonies: one for graduate students on Thursday evening, May 12; and one for undergraduate students on Saturday morning May 14. Faculty will be invited on stage and are encouraged to attend both ceremonies.

Pres. Leshin explained that in collaboration with the Secretary of the Faculty, she will be forming a group to decide how space in Higgins House now devoted to dining could best be converted into a place for faculty members to come together regularly.

Pres. Leshin summarized key accomplishments from the past year: wide community involvement in strategic planning; completion of the \$200M fundraising campaign; the lowest tuition increase in six years while filling key budget gaps; a 24 percent increase in research expenditures; a successful year in athletics; and the successful recruitment of new faculty members, Provost, and Dean of Business. **Pres. Leshin** also outlined areas of concern: the high cost of a WPI education; maintaining a balanced budget; feeding the culture of research and innovation; ensuring that the tenured and tenure track faculty (TTTs) are involved with all elements of the curriculum; maintaining an appropriate balance between TTT's and non-tenure track faculty (NTTs); developing an appropriate plan for the Foise Innovation Studio; maintaining a diverse community; and developing our own campus leaders.

Pres. Leshin recapped the strategic planning process conducted over the last year and how it had evolved into three primary goals (Distinctive Undergraduate Education, Research and Graduate Education, Reputation and Visibility) with three main initiatives under each goal. The goals overlap in complicated synergistic ways. Each goal is to be reached in three to five years, and metrics have been established to measure progress. **Pres. Leshin** encouraged all those interested to become involved in the implementation process and to provide feedback, and explained that a more detailed written description of the strategic plan will be available for the Faculty in about a month or two. **(See Addendum #2 attached to the file copy of these minutes.)**

Pres. Leshin then introduced Provost Bursten for his first appearance at a WPI Faculty meeting.

4. Provost's Remarks

Provost Bursten expressed his gratitude for having been selected as Provost of WPI and described the positive experiences he has had in meeting many of his new faculty colleagues, in general, and in his interactions with Faculty Governance, in particular.

Provost Bursten explained that in an attempt to manage the space needs on campus, both he and VP Solomon will co-chair an academic space committee to manage the issue. In addition, Prof. Orr has agreed to serve as WPI's Sustainability Director and Liz Tomaszewski has agreed to serve as Associate Director.

Provost Bursten explained that the process used to determine the active searches that will take place this year to hire new TTT's was more transparent than in the past. In all, 17 TTT searches (many aligned by cluster hiring) have been authorized and the hope is that the result will be a net increase of 6 or 7 TTT's if there are not any unexpected departures of current TTT's. **Provost Bursten** explained that the limitation on the number of searches we can conduct in any year has more to do with faculty start-up packages than with faculty salaries. He pointed out that in the past three years, WPI's TTT faculty population has increased by 7, while (in his estimation) the student population has remained flat.

5. Introduction of New Faculty Members

The following tenured and tenure-track faculty members were introduced:

Prof. Michael Ginzberg (Dean, Foise School of Business) by **Provost Bursten**; Prof. Susan Roberts (Head, ChE) by **Dean Cyganski** (ECE); Prof. Suzanne Scarlatta (CBC) by **Prof. Gericke** (Head, CBC); Prof. Lane Harrison (CS), Prof. Yanhua Li (CS), and Prof. Gabor Sarkozy (CS) by **Prof. Wills** (Head, CS); Prof. Randy Paffenroth (MA) and Prof. Gu Wang (MA) by **Prof. Capogna** (Head, MA); Prof. Nikhil Karanjgaokar (ME) by **Prof. Yagoobi** (Head, ME); Prof. Erin Ottmar (SS&PS) by **Prof. Doyle** (Head, SS&PS).

The following non-tenure track faculty members were introduced:

Prof. Roy Hegudus (BBT) and Prof. Lou Roberts (BBT) by **Prof. Duffy** (Head, BBT); Prof. Joseph Goodwill (CEE) by **Prof. El Korchi** (Head, CEE); Prof. Eugene Eberbach (CS) by **Prof. Gennert** (Director Robotics, CS); Prof. Suzanne Mello-Stark (CS) and Prof. Wilson Wong (CS) by **Prof. Wills** (Head, CS); Prof. Shamsur Mazumder (ECE) by **Prof. Massoud** (Head, ECE); Prof. Robert Swarz (Systems Engineering, ECE) by **Prof. Looft** (Director Systems Engineering, ECE); Prof. J.B. Kim (Bus), Prof. Elizabeth Long Lingo (Bus), and Prof. Jiho Yoon (Bus) by **Prof. Sarkis** (Head, Bus); Prof. Nicola Bulled (IGSD) by **Prof. Rissmiller** (Assoc. Dean IGSD, SS&PS); Prof. Barry Posterro (MA), Prof. Hyungbin (MA), and Prof. Xuwei Yang (MA) by **Prof. Capogna** (Head, MA); Prof. Fatemeh Emdad (Data Science) by **Prof. Rundensteiner** (Director Data Sciences, CS); Prof. Joe Stabile (ME) and Prof. Sarah Wodin-Schwartz (ME) by **Prof. Yagoobi** (Head, ME); Prof. Rudra Prasad Kafle (PH) by **Prof. Iannacchione** (Head, PH); Prof. Kymberlee O'Brien (SS&PS) and Prof. Gbeton Somasse (SS&PS) by **Prof. Doyle** (Head, SS&PS); JTC Justin Putnam (Military Sci.) and Prof. Curtis Abel (Undergrad. Studies) by **Prof. Heinricher** (Dean UG, MA).

6. Closing Announcements

Prof. Dougherty (CS) explained that he had joined WPI Ombuds Office, which helps with informal conflict resolution. The work of the Ombuds Office is described at www.wpi.edu/offices/ombuds/.

Prof. Gennert (CS) invited all in attendance to a Robotics Open House at 85 Prescott St. to be held on Sept. 25 from 3 to 5pm.

Prof. Spanagel (HU&A) announced that October is Open Enrollment for health insurance coverage.

Brad Miller (Assoc. Dir, Robotics Res. Ctr.) invited all in attendance to a talk by Paul Ventimiglia (former WPI undergraduate and member of the team that won ABC's recent BattleBots tournament) to be given today at 8pm in the Odeum.

Prof. McWeeney (HU&A) encouraged members of the community to attend the upcoming Merleau-Ponty Circle Annual Meeting to be held at WPI on October 1 to 3.

Prof. Richman (ME) emphasized the value of attending Faculty meetings as a way to stay abreast and influence the outcome of current issues facing the Faculty at WPI, and he pointed out the positive community-building effect of assembling to work together and participate in open, honest discussion. He urged all those who could to attend the reception at the President's house following today's meeting.

7. Adjournment

The meeting adjourned at 4:45pm.

Respectfully submitted,
Mark Richman, Secretary of the Faculty

Addenda on file with these minutes:

- 1. SOF, Topics for Discussion at Future Meetings/Examples of Regular Faculty Business 9-8-15**
- 2. President Leshin, President's Remarks 9-8-15**

Date: October 16, 2016

To: WPI Faculty

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

Re: Motion to add a minor in Philosophy and Religion (PY/RE)

Motion: On behalf of the Department of Humanities and Arts, the Committee on Academic Operations recommends and I move that a new minor in Philosophy and Religion (PY/RE) (as described below) be listed in the catalog as described below.

Minor in Philosophy and Religion

Contact person: Ruth Smith

A Philosophy and Religion Minor requires completion of 2 units of work in Philosophy and Religion distributed as follows:

1. 5/3 unit of PY and/or RE courses, which must include a minimum of one 3000-level course and a maximum of one 1000-level course.
2. 1/3 unit Philosophy and Religion Capstone Experience. This can be either a 1/3 unit Independent Study/Project in Philosophy and Religion or a 2000 or 3000-level course approved by the student and advisor, to which significant extra reading and writing requirements are added. The capstone course must be taken last. Decisions about the final course or capstone will vary with the PY/RE advisor.
3. No more than one unit of work from the Humanities and Arts Requirement may be applied toward the Philosophy and Religion minor. The Inquiry Seminar Project cannot be applied to the Minor. Any student at WPI is eligible to pursue the minor in Philosophy and Religion except for students majoring in Humanities and Arts with a concentration in philosophy, or majoring in Humanities and Arts with a concentration in religion.

Rationale:

The minor provides a route for students who want to do more work in the Philosophy and Religion area beyond meeting the Humanities and Arts Requirement. The minor may complement their major, for instance in Computer Science or Biomedical Engineering, or it may allow students to pursue interests that diverge from their major. As with the Humanities and Arts Requirement, the minor encourages the pursuit of individual interests within the specified guidelines. Each student must meet, in consultation with a minor advisor who will also help students determine an integrated course program.

Implementation Date: The minor will be available to students beginning in the 2015-16 academic year.

Resources Needed: The new minor requires no new faculty members.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Academic Operations (Prof. Lindeman, Chair)
Re: Motion to establish a minor in Chinese Studies

Motion: On behalf of the Department of Humanities and Arts, the Committee on Academic Operations recommends and I move that a minor in Chinese Studies (within the Humanities and Arts), be established as described below.

DESCRIPTION OF THE MINOR:

(Contact: Prof. Jennifer Rudolph or Ms. Xin Xin)

The minor in Chinese Studies offers students the opportunity to extend their study of China and the Chinese Language beyond the Humanities and Arts Requirement. The Chinese Studies minor would include intermediate language proficiency or above and content courses on Chinese history, philosophy, environment, and society and culture. The minor is primarily intended for non-native speakers of Mandarin Chinese. Native speakers of Mandarin are not eligible to take Chinese language courses at WPI. Native speakers who wish to pursue this minor through content courses need to receive permission from the minor advisor and will most likely have to take advantage of both WPI and Consortium offerings.

Students must demonstrate a level of Chinese proficiency of at least CN 2544 or its equivalent. A total of two units (six courses) are required for the minor degree requirement from the courses listed below. These consist of:

No more than 1 unit (3 courses) of intermediate to advanced Chinese language classes chosen from the following list:

- CN 2542 (Cat. I)
- CN 2543 (Cat. I)
- CN 2544 (Cat. I)
- CN 3541 (Cat. I)
- or Consortium courses in Chinese approved by a WPI China faculty member.

At least 2/3 unit (2 courses) of advanced culture or society courses chosen from the following list. At least one of these must be at the 3000 level (CN 250X counts as 3000-level for this purpose).

- CN 3541 (2nd year Chinese, 4th term, formerly CN 250X) (Cat. I)
- HI 2328 (History of Revolutions in the 20th Century) (Cat. II)
- HI 2343 (East Asia: China at the Center) (Cat. II)
- HU 2340 (Popular Culture and Social Change in Asia: China) (Cat. II)
- HI 3335 (Topics in the History of Non-Western Science and Technology) (Cat. II)
- HI 3343 (Topics in Asian History: Reengineering China) (Cat. I)
- ID 2050 for Hong Kong or Hangzhou Project sites (Cat. I)
- RE 2724 (Religions of the East) (Cat. II)
- 1/3 unit of Hangzhou or Hong Kong Project Center IQP (Cat. I)
- or Consortium courses approved by a WPI faculty member in Chinese.

1/3 unit of capstone experience (1 course) consisting of an ISP or a 3000-level course in Chinese history, culture, literature, or philosophy identified before the beginning of the term as

the capstone by the student and professor. The capstone experience must be the last course completed for the minor.

WPI policy requires that no more than one unit of course work can be double counted toward other degree requirements. Thus, students may count three courses taken to fulfill other degree requirements (such as the Humanities and Arts Requirement or two course requirement in the Social Sciences) toward the minor, provided that one unit of classes taken for the minor do not double-count for another degree requirement. In practical terms, this means that up to 3/3 units from HUA Requirement and 1/3 unit from a China IQP, with a combined total from the two of no more than 3/3 unit, can be applied to the Chinese Studies minor.

A student who uses an upper level Chinese language course as the capstone for an HUA Requirement fulfilled with language courses cannot use that capstone language course as the capstone for the Chinese Studies minor. For students conducting their IQP or MQP in China, the capstone can take the form of an ISP that reflects on their onsite experiences.

WPI current courses identified as contributing to a Chinese Studies Minor.

Total: 17

Chinese Language:

- CN 1541 Elementary Chinese I (Cat. I)
- CN 1542 Elementary Chinese II (Cat. I)
- CN 1543 Elementary Chinese III (Cat. I)
- CN 2541 Intermediate Chinese I (Cat. I)
- CN 2542 Intermediate Chinese II (Cat. I)
- CN 2543 Intermediate Chinese III (Cat. I)
- CN 2544 Intermediate Chinese IV (Cat. I)
- CN 3541 Advanced Intermediate Chinese I (Cat. I)
- or Consortium Chinese courses in Chinese approved by a WPI China faculty member.

China Content courses:

- HI 2328 History of Revolutions in the 20th Century (Cat. II)
- HI 2341 Contemporary World Issues in Historical Perspective (Cat. II)
- HI 2343 East Asia: China at the Center (Cat. II)
- HI 3335 Topics in the History of Non-Western Science and Technology (Cat. II)
- HI 3342 Topics in Comparative Civilizations (Cat. II)
- HI 3343 Topics in Asian History: Reengineering China (Cat. I)
- HU 1412 Introduction to Asia (Cat. I)
- HU 2340 Popular Culture and Social Change in Asia: China (Cat. II)
- RE 2724 Religions of the East (Cat. II)

Students interested in pursuing the minor should speak with Ms. Xin Xin or Professor Jennifer Rudolph to find out more and to discuss finding a capstone course and any related background courses.

Rationale:

Currently there are 8 Chinese language courses, 12 China content courses, and 4 Inquiry Seminar or Practicum offered at WPI. In addition, WPI offers IQP project sites in Hong Kong and Hangzhou and MQP opportunities in Shanghai, Beijing, and Wuhan, with approximately 40 to 50 students choosing to complete a project in China each year. This minor is for students with

a strong interest in China, who want to combine their STEM or Business degrees with China expertise in language and society. Currently, twelve students have indicated their desire to pursue an independently designed minor in Chinese Studies. This proposal would create a formal minor.

OUTCOMES: The Chinese Studies minor would serve to provide students with a strong working knowledge of Chinese language and Chinese history, politics, and culture and to document those efforts. It would also serve as preparation for anyone who wants to pursue project work in China or work in Asia.

ESTIMATED ENROLLMENT: There is growing interest in Chinese and China content courses on campus. Students satisfying their Humanities and Arts Requirement with a focus in China or the Chinese language would especially find themselves in a strong position to pursue a Chinese Studies minor. Currently 12 students have expressed interest in pursuing a Chinese Studies minor. Of them, two seniors and one junior have filed IDM forms, and the seniors are working on their capstone course work.

RESOURCES REQUIRED: No additional resources are required for the Chinese Studies Minor. All courses listed are currently offered. Two experimental courses (WR 330X, "Cross Cultural Communication" in HUA and ENV 250X, "Growth, Development, and Environmental Justice in China" in SSPS) if they become permanent, will also count toward the minor.

IMPLEMENTATION: The courses are currently being taught by professors and instructors in the HUA Department and IGSD. The new minor would be available for the 2015-2016 academic year.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Academic Operations (Prof. Lindeman, Chair)
Re: Motion to include English language as a foreign language track in HU&A

Motion: On behalf of the Department of Humanities and Arts, the Committee on Academic Operations recommends, and I move, that English language be included in the Foreign Languages group (Spanish and German), and that the HUA project requirement be revised to make English language the same as the other foreign language tracks (5 courses in ISE/WR with an advanced capstone course in ISE/WR to fulfill the inquiry seminar/practicum) in all but the following respect: *students are free to move out of the ISE sequence and into other courses and inquiry seminars or practicums once they have achieved a certain level of competency with the English language.*

Description of the Proposed English Language Track:

We propose to offer ESL students a track through the HUA requirement that enables them to get the depth and breadth of cultural and linguistic competency via an English language track. Students will take five ISE/WR courses and then complete their HUA project requirement with an “advanced language seminar” by taking a 3000-level or above ISE/WR project-based course (with preapproval of the instructor of the course). Seminar examples: HU3900 Intercultural Communication and Comparative Cultural Communication and WR 330X Cross Cultural Communication. Students would be required to submit the same materials to demonstrate completion of the requirement as students whose culminating experience was an inquiry seminar or practicum in another area of the Humanities and Arts.

Sample curriculum for students who start at the beginning of the ISE curriculum:

ISE 1800 Intro to Academic Reading and Writing for Non-native Speakers of English
ISE 1801 Composition for Non-native Speakers of English
ISE 1803 Oral communication for Non-native Speakers of English
ISE 2800 College Writing for Non-native Speakers of English
WR2210 Business Writing and Communication
WR330X Cross Cultural Communication *or* HU 3900 Intercultural and Comparative Communication

Sample curriculum for students with high-intermediate language proficiency

ISE 1801 Composition for Non-native Speakers of English
WR 1010 Elements of Writing *or* WR1011 Writing about Science and Technology
ISE 2800 College Writing for Non-native Speakers of English
WR 2211 Visual Rhetoric
WR3310 Digital Rhetoric *or* WR 330X Cross Cultural Communication
WR 4111 Research Methods in Writing

The courses in this proposal are designed to be a sequence and it is expected that students will take them in sequence starting in term A, unless they test into a later starting term. The sequence is designed for international non-native speakers of English.

Proposed changes to the undergraduate catalog (pages 35 - 38) are in bold underlined:

Under the “Humanities and Arts Requirement:”

BREADTH COMPONENT:

To ensure intellectual breadth, before taking the final Inquiry Seminar or Practicum, students must take at least one course outside the grouping in which they complete their depth component. To identify breadth, courses are grouped in the following manner:

- art/art history, drama/theatre, and music (AR, EN/TH, MU);
- foreign languages (SP, GN, **ISE**, AB, CN);
- literature and writing/rhetoric (EN, WR, RH);
- history and international and global studies (HI, HU, INTL);
- philosophy and religion (PY, RE).

DEPTH AND BREADTH COMPONENTS IN FOREIGN LANGUAGES:

Development of proficiency in a foreign language necessitates sustained engagement in the language beyond the elementary and intermediate level. Foreign language instruction is broadly interdisciplinary and includes elements of the history, literature, and culture of a particular language area. A student in foreign languages must still meet the depth component of the requirement by taking 6 courses in the foreign language, one of which is approved as the final Inquiry Practicum or Seminar. Additional information about options for the Inquiry Practicum or Seminar in Chinese (CN), German (GN), Spanish (SP), **and English language for non-native speakers (ISE)** can be found later in this section. A student who begins foreign language study is not compelled to remain in that subject, but could choose to switch to another subject of study and complete the depth component in another thematic area.

FOREIGN LANGUAGES: PRACTICUM OR SEMINAR:

Students in foreign languages may complete the Humanities and Arts Requirement in one of the following three ways:

3. *Advanced language seminar after advanced-level language courses combined with courses from other areas of study.*

Students who demonstrate basic oral, written, and cultural knowledge of a foreign language in a placement test at the advanced level may combine courses from other areas for their requirement. (Seminar examples are the same as option 2.). **International students who are non-native English speakers may take a combination of ISE and WR courses and fulfill the HUA requirement by taking a 3000-level or above ISE/WR project-based course.**

Option 1 and 2 require students to take six courses in a foreign language. For example, in option 1, a student without prior language training might begin with GN 1511 Elementary German I and conclude with a practicum in GN 3512 Advanced German II. In option 2, for example, a student might start with SP 2521 Intermediate Spanish I followed by five Spanish courses which culminate in one of the designated seminars. In option 3, students who demonstrate knowledge of the foreign language at the advanced level may mix courses from other areas in their course sequence. For example, a student might take two courses from history, philosophy, music, etc. along with four advanced Spanish courses which would culminate in a designated seminar. **Students in the English language track might begin with three ISE courses, take one WR course, one from history, and conclude with a 3000-level ISE/WR course.** Students in all three options for foreign languages would be required to submit the same materials to demonstrate completion of the requirement as students whose culminating experience was an inquiry seminar or practicum in another area of the Humanities and Arts.

HUA Faculty arranged by disciplinary group

Languages (AB, CN, GN, **ISE, SP)**

Mohamed Brahim (AB)

Esther Boucher-Yip (ISE)

Ulrike Brisson (GN)

Aarti S. Madan (SP) Ingrid Matos-Nin (SP) Angel Rivera (SP)

Xin Xin (CN)

Rationale:

English as a Second Language (ESL) is, by definition, a second language, and as WPI recognizes, studies in foreign languages require sustained engagement to attain linguistic and sociolinguistic competency. At WPI, international ESL students who pursue an English language track in HUA will have more targeted practice in English language proficiency. The prefix ISE is defined as Integrated Skills in English. This comprehensive approach to English language learning will help students understand the linguistic and cultural demands of their academic and daily lives in the United States. Such a study provides them with

both academic rigor and room to develop deep comparative cultural understandings between their home cultures and language and American English and US culture.

This foreign language track option has precedent at WPI in both Spanish and German. According to the undergraduate catalog, depth and breadth in foreign languages reads:

Development of proficiency in a foreign language necessitates sustained engagement in the language beyond the elementary and intermediate level. Foreign language instruction is broadly interdisciplinary and includes elements of the history, literature, and culture of a particular language area. A student in foreign languages must still meet the depth component of the requirement by taking 6 courses in the foreign language, one of which is approved as the final Inquiry Practicum or Seminar. Additional information about options for the Inquiry Practicum or Seminar in German (GN) and Spanish (SP) can be found later in this section. A student who begins foreign language study is not compelled to remain in that subject, but could choose to switch to another subject of study and complete the depth component in another thematic area.

In other words, Spanish and German offer students a comprehensive approach to language learning, asking students to take five language courses and a sixth advanced language and culture course, which acts to fulfill the HUA project.

We include both ISE (Integrated Skills in English) courses and WR (Writing) courses because of the close relationship between the content matter and culturally sensitive approaches to communication that both of these disciplines share. In fact, it is common at other universities for this same matriculation model to be used to help students transfer into academic English courses (ESL courses in Intensive English Programs lead to Writing courses, which provide a technical and cultural foundation in students' target language). Thus, if a student tests into advance ISE courses, then that student can matriculate up to WR courses to gain advanced competency in English. Conversely, if a student starts at the beginning of the ISE curriculum, then that student will be brought up to high intermediate or advanced English by the end of six courses of study (such a course would include Elements of Writing and a 3000-level course—see sample curriculum below). ***Similar to Spanish and German students enrolling in these courses must take a placement test or obtain written permission from the instructor.***

Resource Needs: Since Prof. Esther Boucher-Yip already teaches most of the ISE courses, she is expected to continue to teach the permanent courses. A new hire is already in place to teach the current ISE courses and future experimental courses. No new resources are anticipated as being necessary.

Impact on Distribution Requirements: Students taking English language (ISE) courses can apply credits toward their HUA Requirement. As international student enrollments at WPI have increased, so has enrollment pressure on HUA language courses. Thus, it is not expected that these classes will adversely affect enrollments in other HUA courses, including language courses.

Implementation Date: The anticipated implementation date for this track is the 2016-2017 academic year: A, B, C, and D terms.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Academic Operations (Prof. Lindeman, Chair)
Re: Motion to add PSY 2501 (Music and Mind)

Motion: On behalf of the SSPS Department and the Psychological Science Program, the Committee on Academic Operation recommends and I move, that PSY 2501: Music and Mind be added, as described below.

Course/Catalog Description:

PSY 2501: Music and Mind

Cat I

How are we able to distinguish instruments, timbres and rhythms from the intertwined sonic stream presented by the world? How do we organize these elements in time to create rhythms, melodies, phrases and pieces? How do perception and memory interact to allow us navigate a musical work? We will explore these questions by considering the cognitive and perceptual processes that shape our musical experience. Topics will include event distinction, temporal perception, hierarchical organization, perceptual grouping, expertise, memory and categorization. We will illustrate these ideas in musical contexts by listening to a variety of musical works. We will consider how psychological principles are applied to music technologies, such as compression algorithms, mixing methodologies and the field of music information retrieval. We will consider experiments that focus on some of these topics to further our understanding about how we experience music.

Note: Students that received credit for MU202x cannot receive credit for MU2501. Students also cannot receive credit for both MU 2501 and PSY 2501. This course can count for either the HUA or the SSPS requirement, but it cannot double count for both the HUA and SSPS graduation requirements.

Recommended background: Fundamentals of Music I and/or Fundamentals of Music II.

Note: Students cannot receive credit for both MU2501 and PSY 2501.

Anticipated Instructor: Scott Barton (currently teaches MU 2501: Music and Mind)

Rationale: PSY 2501: Music and Mind will provide a link between psychology and music. Specifically the course focuses on the psychology behind music—how we perceive it, hear it, and cognitive deduce it. This course will also provide an additional course for majors and minors to take to fulfill their degree requirements.

Note changes to catalog: PSY 2501 shall be added to the catalog and cross-listed with MU 2501.

Impact on Distribution Requirements and Other Courses: This will provide one additional course for Psychology majors and minors to take.

Implementation Date: Implementation date for this action is the 2015-2016 Academic year.

Resource Needs: There are no new resources needed to deliver this course. Scott Barton currently teaches MU2501. Once cross-listed, students enrolled in MU2501 and PSY2501 will be the same.

Date: October 16, 2016
To: WPI Faculty
From: Committee on Academic Operations (Prof. Lindeman, Chair)
Re: Two motions that remove the ME designation of several AE/ME courses

Motion 1:

On behalf of the Mechanical Engineering Department and the Aerospace Engineering Program, the Committee on Academic Operations recommends and I move that the following courses, currently cross-listed with the prefix “AE/ME” in the Undergraduate Catalog, have the ME designation removed and instead be designated with the prefix “AE” under the “Aerospace Engineering” heading in Section 3 of the Undergraduate Catalog .

AEROSPACE ENGINEERING
~~AE/ME 3712 AEROSPACE STRUCTURES~~
~~AE/ME 4710 GAS TURBINES FOR PROPULSION AND POWER GENERATION~~

Motion 2:

On behalf of the Mechanical Engineering Department, the Committee on Academic Operations recommends that the following courses be removed from under the “Mechanical Engineering” heading in Section 3 (Course Descriptions) of the Undergraduate Catalog.

MECHANICAL ENGINEERING
~~AE/ME 3712 AEROSPACE STRUCTURES~~
~~AE/ME 4710 GAS TURBINES FOR PROPULSION AND POWER GENERATION~~

Rationale (for both motions):

When the cross-listing of these courses was established, the AE designation was established in the same motion. Students majoring in Mechanical Engineering who were pursuing a concentration in either Aeronautics or Astronautics would have been unable to do so if these courses only had the AE prefix. Now that a Minor in Aerospace Engineering has been established and the ME Department eliminated these concentrations, the need for the cross-listed courses no longer exists. The motion will also help distinguish, both for students and ABET reviewers, those courses which are distinctly within the AE discipline.

This motion does not eliminate all ME/AE cross-listed courses. The joint designation will continue to exist for foundation courses where the content is interdisciplinary between ME and AE, specifically for:
AE/ME 3410 Compressible Fluids
AE/ME 3602 Incompressible Fluids
AE/ME 3703 Intro to Controls of Dynamical Systems
AE/ME 4718 Advanced Materials with Aerospace Applications.

Implementation Date: Implementation date for this action is the 2016-2017 Academic year.

Resource Needs: No additional resources are needed.

Impact on Distribution Requirements: Because the four foundational courses (ME/AE 3602, ME/AE 3410, ME/AE 3703 and ME/AE 4718) continue to be cross-listed, there will be no impact on distribution requirements as a result of this motion. The AE courses included in this motion were taken primarily by ME students pursuing the AE concentrations which no longer exist. These ME students have been pursuing the AE Minor.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Academic Policy (Prof. Doyle, Chair)
Re: Motion to discontinue the undergraduate System Dynamics major

Motion: On behalf of the Department of Social Sciences and Policy Studies, the Committee on Academic Policy recommends and I move that the undergraduate major program in System Dynamics be discontinued, effective AY16/17.

Rationale:

The System Dynamics major was established in 1997 and enrolled its first student in the Fall of 1998. The current catalog description of the program is appended below. The program was created to take advantage of WPI's unique faculty expertise in system dynamics and to give undergraduates the opportunity to develop expertise in applying computational modeling to social and economic problems. The program began with much enthusiasm and energy on the part of the department, which devoted considerable resources to helping it succeed. The program enjoyed an initial burst of success, enrolling a high of 18 students (across all class years) in 2001. However, enrollment has declined precipitously in recent years, as shown in the following table:

<u>Year</u>	<u>Enrollment</u>
1999	7
2001	18
2003	5
2005	3
2007	7
2009	9
2011	2
2013	0
2015	0

There are currently no students enrolled in the program. Due to low enrollment, the former upper level required courses in the program, SD2530 and SD3550, have not been offered for several years (although they have been taught to a few students on an independent study basis).

The enrollment decline is due to some degree to the establishment of the M.S. in system dynamics program in 2007, which drew faculty attention and resources away from the UG program. In addition, new and revitalized UG SSPS programs in psychology and environmental and sustainability studies attracted students that might otherwise have pursued system dynamics.

Ultimately, though, our experience suggests that system dynamics is a degree program that is most appropriately offered at the graduate rather than undergraduate level, once students have the domain expertise and practical experience that helps them recognize the value of the system dynamics methodology. The department would therefore like to focus its efforts in the system dynamics area on the successful on-line M.S. program and the new interdisciplinary M.S. program in System Dynamics and Innovation Management.

The Department will continue to offer introductory courses in system dynamics for students interested in taking them to fulfill their Social Science Requirement. In addition, the B.S./M.S. program in system dynamics, which allows undergraduates in any major field to pursue a five-year program culminating in an M.S. in system dynamics, will continue to be offered as described in the graduate catalog.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Demetriou, Chair)
Re: Motion to approve a new cross-listed on-line graduate course MFE/MTE/ME 5420

Motion: On behalf of the Department of Mechanical Engineering, the Committee on Graduate Studies and Research recommends and I move that the following new cross-listed on-line graduate course be added, as described below.

MFE 5420/ MTE 5420/ME5420. Fundamentals of Axiomatic Design of Manufacturing Processes (2 credits)

The course starts with an in-depth study of axiomatic design. Applications of axiomatic design are considered primarily, although not exclusively, for the design of manufacturing processes and tools. Axiomatic design is a design methodology based on the premise that there are two axioms that apply to all good designs. These axioms facilitate the teaching and practice of engineering design as a scientific discipline. Manufacturing process analysis is considered from the perspective of supporting design. Methods of analysis of manufacturing processes with broad applicability are sought. Special attention is given to examples in machining (traditional, nontraditional and grinding), additive manufacturing, and to the production of surfaces. The ability to find commonalities across applications and generalize is emphasized to facilitate further development of principles with broad applicability. The content is delivered in video lectures and in readings from the technical literature. Homework and quizzes are given and delivered on-line. There is a project to design a manufacturing process. The topics can be from work or dissertations that can be interpreted as manufacturing processes and tools.

Credit cannot be given for this course and any of the similar, in-class versions for 3 credits, MFE520, MTE520 and ME543.

Rationale: This course replaces the on-line portion of a blended course. The blended course has been taught for a number of years, however it was felt that quality of both the on-line and live sections were less than optimal because they were coupled. In the attempt to accommodate one section in the presentation, the other section of the class could suffer. The live class and on-line portion use the same on-line recorded lectures and assignments. The live class has been flipped and the live in-class time is now used primarily for discussion and problem solving. This decouples the presentation of two courses, provides excellent content for both, and allows the on-line class to be offered any term, even when the live class is not being offered.

Resources and Anticipated Instructors: The only resource required for this course is the instructor's time. Offering this several terms to smaller numbers of students, rather than having everyone in the blended course all at once, has a number of benefits. Load leveling of the professor's time throughout the year is just one of them. Instead of having 70 to 90 students all in one semester, no more than 20 students are taking the course at one time. The students are getting more individual attention as well. Another benefit is that the course is able to evolve more quickly because more iterations throughout the year. The course was and is being offered every term starting in the fall of 2014, including the two summer terms, as a special topics course.

Implementation Date: Implementation date for this action is the 2015-2016 academic year.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Demetriou, Chair)
Re: Motion to change course description for BUS 597

Motion: On behalf of the School of Business, the Committee on Graduate Studies and Research recommends and I move that the course description of BUS 597 be changed as described below.

Revised Course Description (with additions in *bold italics*)

BUS 597. Internship

The internship is an elective-credit option designed to provide an opportunity to put into practice the principles that have been studied in previous courses. Internships will be tailored to the specific interests of the student. Each internship must be carried out in cooperation with a sponsoring organization, generally from off campus, and must be approved and advised by a WPI faculty member in the School of Business. Internships may be proposed by the student or by an off-campus sponsor. The internship must include proposal, design and documentation phases. Following the internship, the student will report on his or her internship activities in a mode outlined by the supervising faculty member. Students are limited to counting a maximum of 3 internship credits toward their degree requirements. *Students must be making satisfactory academic progress as defined in the WPI graduate catalogue to be eligible to register for internship credit. International students who are working on a second U.S. master's degree and who have already used their master's-level Optional Practical Training (OPT) may petition the School of Business' Graduate Policy and Curriculum Committee to do additional Curricular Practical Training (CPT) beyond 3 credits on a non-credit basis.* Part-time students cannot do an internship at their place of employment.

Rationale: By adding the “satisfactory academic progress” qualification we add a check to try and ensure that off-campus work does not negatively impact the student’s academic program. Additionally we are providing a vehicle for international students working on a second U.S. master’s degree to continue to work under CPT for the duration of their program rather than having to stop after 1 year.

Resources and Anticipated Instructors: No new faculty will be needed.

Implementation Date: Implementation date for this action is the 2015-2016 Academic year.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Demetriou, Chair)
Re: Motion to revise the admission to candidacy procedures for the Aero. Eng. Ph.D. Program.

Motion: On behalf of the Aerospace Engineering Program, the Committee on Graduate Studies and Research recommends and I move, that the “Admission to Candidacy” section in the Graduate Catalog (pp. 28-29 of the 2015-16 Graduate catalog) be modified as described below.

DESCRIPTION OF THE REVISIONS FOR THE GRADUATE CATALOG:

(Additions in underline, deletions ~~struck through~~)

Admission to Candidacy

Admission to candidacy will be granted when the student has satisfactorily passed a written Qualifying Exam intended to measure fundamental ability in the three Core Areas of Study: fluids and propulsion; dynamics and control; materials and structures. The Qualifying Exam is given in January the first week of D term and, if required, a Retake Qualifying Exam is given in the middle of D Term ~~in February~~. For full-time students who enter the program in the fall with a bachelor’s degree, the exam must be taken after ~~three two semesters – terms~~ if they began their studies in the fall, and after ~~two semesters – five terms~~ if they began in the spring. ~~For students who enter the program with a master’s degree, the exam must be taken after one semester if they began in the fall, and after two semesters if they began in the spring. Students in the M.S. program who plan to apply for fall admission to the Ph.D. program are strongly advised to take the candidacy exam in January before that fall.~~ The Qualifying Exam is graded using a Pass/Fail system with Pass/Fail grading in each of the three Core Areas of Study. A student must earn a Pass in all three Core Areas of Study in order to earn a Pass in the Qualifying Exam. A student may attempt the Retake Qualifying Exam ~~in February~~ for the Core Areas of Study failed during the Qualifying Exam ~~given in January~~. If a student fails to earn a Pass in all three Core Areas of Study of the Qualifying Exam and the Retake Qualifying Exam, he/she must withdraw from the Ph.D. program by end of D term of the year of the Exam. The details of the examination procedure can be obtained from the Aerospace Engineering Office.

Rationale: The revision shifts the time of the Exam from C Term to D Term, and provides to our incoming students one more term in which they can complete the courses in “Core Areas of Study” or review them if they have taken similar courses elsewhere. The revision makes the Qualifying Exam more accessible to incoming students and aligns it with the material covered in our introductory graduate courses making it the diagnostic tool we were looking for. We standardize the Qualifying Exam for all incoming students who may have diverse undergraduate backgrounds.

Resources and Anticipated Instructors: No new faculty will be needed.

Implementation Date: Implementation date for this action is the 2016-2017 academic year.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Demetriou, Chair)
Re: Motion to revise the academic advising and schedule for the Aero. Eng. Ph.D. Program.

Motion: On behalf of the Aerospace Engineering Program, the Committee on Graduate Studies and Research recommends and I move, that the “Academic Advising and Schedule” and “Dissertation Proposal and Annual Dissertation Review” sections in the Graduate Catalog (pp. 28-29 of the 2015-16 Graduate catalog) be modified as listed below.

DESCRIPTION OF THE REVISIONS FOR THE GRADUATE CATALOG:

(Additions in underline, deletions ~~struck through~~)

Academic Advising and Schedule

- ~~Annual Dissertation Review: presented by a Doctoral Candidate to the Dissertation Advisor and at least one member of the Dissertation Committee each academic year following the acceptance of the Dissertation Proposal.~~

Dissertation Proposal and ~~Annual Dissertation Review~~

Each Doctoral Candidate must prepare a brief written proposal and make an oral presentation that demonstrates a sound understanding of the dissertation topic, the relevant literature, the techniques to be employed, the issues to be addressed, and the work done on the topic by the student to date. The Dissertation Proposal must be made within a year after the Qualifying Exam before the completion of the Ph.D. Dissertation and after of admission to candidacy. Both the written and oral parts of the Proposals are presented to members of the Dissertation Committee and a representative from the AE Graduate Committee. The prepared portion of the oral presentation should not exceed 40 minutes, and up to 60 minutes should be allowed for discussion. If the members of the Dissertation Committee and the Graduate Committee representative have concerns about either the substance of the proposal or the student’s understanding of the topic, then the student will have one month to prepare a second presentation that focuses on the areas of concern. This presentation will last 15 minutes with an additional 35 minutes allowed for discussion. Students can continue their research only if the Dissertation Proposal is approved. If the Dissertation Proposal is not approved, the Doctoral Candidate may find a new Dissertation Advisor and proceed with a new Dissertation Proposal. ~~In subsequent years after approval of the Dissertation Proposal, each Doctoral Candidate must prepare an oral presentation for the Annual Dissertation Review. The presentation to members of the Dissertation Committee should not exceed 20 minutes with an additional 30 minutes allowed for discussion.~~

Rationale: The removal of a formal requirement for an annual dissertation review reflects current practice. During the third or the fourth year a graduate student is usually involved in conference and journal publications which provide direct evidence of progress and thus, surpass the necessity of a formal annual review meeting. It has also been proven cumbersome to formally convene the committee before the defense.

Resources and Anticipated Instructors: No new faculty will be needed.

Implementation Date: Implementation date for this action is the 2016-2017 academic year.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Demetriou, Chair)
Re: Motion to eliminate IMGD4700 from the IMGD MS distribution requirements

Motion: On behalf of the Interactive Media and Game Development Program, the Committee on Graduate Studies and Research recommends and I move, that the course IMGD 4700 "Advanced Storytelling: Quest Logic and Level Design" be removed from the Technical Focus Area in the IMGD M.S. distribution requirements.

COURSE TITLE AND DESCRIPTION:

IMGD 4700 Advanced Storytelling: Quest Logic and Level Design

This course provides an in-depth examination of storytelling as it is currently done in 2D and 3D games through a study of quests and construction of gaming spaces. Level designers turn stories into games through building virtual spaces and populating them with non-player characters who have their own objectives. Cinematics are used to extend the narrative space. The course requires students to build multiple virtual spaces that have a history and a population with present needs. Students need to work out plotting through the logic of a quest, build several areas that supports that logic and create cinematics to extend their narrative space.

Rationale: IMGD majors are required to take 6 credits in one of three focus areas: Technical, Serious Games, and Management. When selecting valid courses for each area, it was originally thought that IMGD 4700 would have sufficient technical content to satisfy both the Technical focus area and the Serious Games focus area. However, after offering the course several times, it is apparent that IMGD 4700 should only satisfy the Serious Games focus area.

There would be minimal impact on the choices for IMGD graduate students since there are many other choices for their Technical focus area: Graphics/Imaging (CS 543, CS 545/ECE 545, CS 549, CS 563), Software Engineering (CS 509, CS 562), Networks/Systems (CS 513/ECE 506, CS 529, CS 530/ECE 530, CS 533/ECE 581, CS 577/ECE 537), Artificial Intelligence (CS 534, CS 538, CS 539, CS 540, CS 566, CS 568), Human-Computer Interaction (CS 546, CS 565, CS 567), IMGD (IMGD 4000, IMGD 4100, IMGD 4700).

However, the change would strengthen the technical focus area for some of the IMGD graduate students, requiring them to choose a course from the list above.

Resources and Anticipated Instructors: No new faculty will be needed.

Implementation Date: Implementation date for this action is the 2016-2017 academic year.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Demetriou, Chair)
Re: Motion to add IMGD 5000 as a permanent course

Motion: On behalf of the Interactive Media and Game Development program, the Committee on Graduate Studies and Research recommends and I move, that "IMGD 5099-S Special Topics in Interactive Media and Game Development Design Studio" be converted to a permanent course, "IMGD 5000 Game Design Studio."

COURSE DESCRIPTION:

IMGD 5000 Game Design Studio (3cr.)

This is a "studio" course in which the instructor will guide and mentor the students on individual and/or joint projects. The focus of the course will be on the design of interactive media and games, with the students designing (and optionally implementing) one or more games or interactive experiences. There will also be readings and discussion of design theory as it relates to student projects.

This course can be taken for M.S. credit twice if desired.

Rationale: The main goal of this course is to strengthen the role of design in our graduate curriculum. The course IMGD 5099-S was taught once in Fall 2014, with positive feedback from the students and faculty.

IMGD 5099-S, Fall 2014

3.88 Q1 - Course rating

4.14 Q2 - Instructor rating

4.22 Q9 - Amount learned

mode 11-15 hours Q26b - Total time outside of class

The course is being taught again, this Fall 2015.

Currently, the course has counted as an elective towards the MS degree according to current requirements. However, an accompanying motion changes the course to required course for every M.S. student. Our recommendation is that students take the course in their first term of study, where it serves as an "leveller" or "immigration course" in our curriculum.

In addition, the studio course allows students to take it twice, if desired, and receive elective credit towards the M.S. degree the second time. This also provides for a mixture of first and some second year students in the course that is beneficial for both (there is a lot of data on the benefits of peer learning in this type of setting).

Finally, this course addresses the students' desire for more independent study, where students can basically to work on projects of their own choosing.

Resources and Anticipated Instructors: No new faculty will be needed. The IMGD program recently hired Professor of Practice Lee Sheldon who is available to teach this course. Alternative instructors are Professor Dean O'Donnell, Professor Jennifer deWinter or Professor Brian Moriarty.

Implementation Date: Implementation date for this action is the 2016-2017 academic year.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Demetriou, Chair)
Re: Motion to add IMGD 5000 to the distribution requirements of the IMGD MS program

Motion: On behalf of the Interactive Media and Game Development program, the Committee on Graduate Studies and Research recommends and I move, that the distribution requirements for the IMGD M.S. degree be changed to require 3 credits of **IMGD 5000 Game Design Studio** and that the “Degree Requirements” section in the Graduate Catalog (pp. 106 of the 2015-16 Graduate catalog) be modified as listed below.

Current Distribution Requirements for M.S. in IMGD M.S. :

- 9 credits - Core courses
- 6 credits - Focus courses
- 6 credits - Elective courses
- 9 credits - Thesis/Project

Proposed Distribution Requirements for M.S. in IMGD M.S. :

- 3 credits - Game Design Studio (IMGD 5000)
- 9 credits - Core courses
- 6 credits - Focus courses
- 3 credits - Elective courses
- 9 credits - Thesis/Project

Rationale: The main goal of this proposal is to strengthen the role of design in our graduate curriculum. IMGD 5000 is a studio course the focuses on design. Currently, IMGD 5000 counts as an elective towards the M.S. degree according to current requirements. The change will require the course for every M.S. student. Our recommendation is that students take the course in their first term of study, where it serves as a "leveller" or "immigration course" in our curriculum.

Students are allowed to take the course twice, if desired, with the second offering counting towards elective credit. This also provides for a mixture of first and some second year students in the course that is beneficial for both (there is a lot of data on the benefits of peer learning in this type of setting).

While students will have a reduced number of elective credits, there is still 3 elective credits to provide some flexibility in the degree.

Resources and Anticipated Instructors: No new resources are needed. The IMGD program recently hired Professor of Practice Lee Sheldon who is available to teach this course. Alternative instructors are Professor Dean O'Donnell, Professor Jennifer deWinter or Professor Brian Moriarty.

Implementation Date: Implementation date for this action is the 2016-2017 academic year.

Date: October 16, 2015
To: WPI Faculty
From: Committee on Academic Operations (Prof. Lindeman, Chair)
Re: Undergraduate Student Graduation List

Motion: The Office of the Registrar reports that the following candidates have, as of October 9, 2015, completed all of the requirements for the degree designated in the department or program indicated, and are eligible to receive that degree. Therefore, as Chair of CAO, I move that these students be approved for October 9, 2015 graduation.

Bachelor of Science

Biochemistry:

**Nicholas Abraham
Pakatar

Bioinformatics & Computat

Biology:

*Yifan Zhao
- minor: Statistics

Biology and Biotechnology:

Sherman Jafri Peoples

Biomedical Engineering:

Nicholas Barreto
*Michael Raymond Day
- minor: Biology
Tamene Zewdu Tedla

Chemical Engineering:

Devon L. Martin

Civil Engineering:

Seamus Gallagher
Sandra Garcia-Fine
- concentration in
Environmental
Melissa Barbara Landi
*Kelsie Lauren Lazaro
- minor: Music
Nicholas Gage Rice

Computer Science:

Samuel T. Abradi
Stephen Talbot Donohue
Christian Manuel {second
major} 5/15 IMGD
Sean McCrone
*Long Duc Hoang Nguyen
Pengfei Tang
Jonathan T. Wu {second
major} 5/15 RBE

Electrical & Computer Engineering:

Temirlan Aigozhin
*William Christopher
Moore
{ Double Major }
**Stephanie Michel
Piscitelli
Philip Warren Radder

Electrical Engineering:

John George Albrecht

Industrial Engineering:

Max Ian Arnold
Devan Eve Beaulac
- minor: Aerospace
Engineering
Lili Zhang
- minor: Mathematics

Interactive Media & Game Development:

Tyree Isaiah Robinson
Nicholas Sitar

Mathematical Sciences:

*Jeremy V. Macaluso

Mechanical Engineering:

Jackson Dain Beall
Samuel Robert Johnston
Anthony Charles Mikelonis
Shawn Francis Moes
Liyuan Shen
Deanna Souza
*Zhansong Xu
- concentration in
Manufacturing
- minor: Physics

Physics:

Daniel Coffey

Robotics Engineering:

Gabriel Thomas Bell
*Ayesha Fathima
- minor: Computer
Science
*Adria Sum-Yee Fung
- minor: Mathematics
- minor: Chinese
Studies
**Tianchang Gu
*Thane Robert Hunt
William C. Jones II
*William Christopher
Moore
{ Double Major }

Date: October 16, 2015
To: WPI Faculty
From: Committee on Graduate Studies and Research (Prof. Demetriou, Chair)
Re: Graduate Student Graduation List

Motion: The Office of the Registrar reports that the following candidates have, as of October 9, 2015, completed all of the requirements for the degree designated in the department or program indicated, and are eligible to receive that degree. Therefore, as Chair of CGSR, I move that these students be approved for October 9, 2015 graduation.

Doctor of Philosophy

Chemical Engineering:

Zanzan Zhu

Civil Engineering:

Jose Ricardo Alvarez
Corena

Computer Science:

Adrian Boteanu
Chuan Lei
Yutao Wang

Fire Protection Engineering:

Gregory E. Gorbett

Materials Science and Eng.:

Zhangfeng Zheng

Master of Business Admin.

Hemant Vishindas
Ajvani
Stephen William Black
Benjamin Cabell V
Ronan Daly
Scott F. Gay
Andrea Jeanne Kaneb
Joann J. Kent
Christopher Michael
Kopinski
Brian Anthony
Kostantin
Debra A. LaCortiglia
Leslie Ann Mason
Eugene Francis Mehr
III

Matthew Michael Mina
Matthew James Phillips
Alexander MacCall
Sargent
Kevin John Szeredy
Sujit Tatke

Master of Engineering

Biomedical Engineering:

Lauren Barbara
McCarthy

**Power Systems
Engineering:**

Robert James Behl
Jule-Dulyn Francisque
Maturin Lita
Ayoub Abdalla Zobian

**Master of Mathematics for
Education:**

Tara Rose Bruso
Scott Alan Dolesh

Master of Science

Biology and Biotechnology:

Karen Tran

Biomedical Engineering:

Jared Matthew Franklin

Chemical Engineering:

Nicholas David Deveau

Computer Science:

Michael Sean Barry
Artem Vladimirovich
Gritsenko
Chao Li
Danxiang Li
Anahita Mohseni Kabir
Joseph A. True
Chu Xu

Data Science:

Lily Robin O'Leary
Amadeo

**Electrical & Computer
Engineering:**

Amir Abedini
Jordan Thomas Brauer
Aline N. Elad
Zeyan Huang
Nicole Joyce Levasseur
Matthew Grooms
Menning
Michael Antoine
Moukarzel
Matthew David Orsini
Aria Shahverdi
Shivang Rajiv Vyas
Christopher Henry
Wozny

Financial Mathematics:

Yilun Chen
Yiwen Sun
Yuxin Wei

Nicolas Martinez
Baquero
Andrew Ivan Nehring
Sarah Rose Straus

Fire Protection Engineering:

Matthew John Cogswell
Allie Kathleen Gilks
Travis Christopher
Schneider

Operations Design & Leadership:

Shuning Yan

Physics:

Danielle Rose Beaulieu

Information Technology:

Vanessa Guo
Pradnya Khalwadekar
Pradnya Amrut Pansare
Anshita Verma

Power Systems**Management:**

Antonio DiCesare
Alex Chettuvallil
Kuriakose
Alyna C. Montoya-
Wiuff
Darren Nunes

Interactive Media & Game Development:

Seyed Siavash
Mortazavi Ravari

Robotics Engineering:

Velin Dimitrov
Rebecca Joy Linton

Learning Sciences & Technology:

Ozge Yasar

Systems Engineering:

Andrew Joseph
Bingham
Michael Cosmas
Caradimos
Anthony J. Duva, Jr.
Nicholas Paul Gagnon
David Barry Jeannotte
Bryce Snarski-Pierce
James Richard
Stapleton
Michael Jason Tobin
Benjamin Joseph
Wilson

Management:

Tanishq Bhalla
Vito A. Bussmann
Rony Noreldin
Long Qu
Yuan Suo

Materials Science and Eng.:

Miranda Rose Gray
Laura Mohanty

Mechanical Engineering:

Patrick John Allen
Michael William Cullen
Steven Michael Danley
Ryan Avelar Fredette
Anthony Samir
Hannoush
Eric Richard Kottke