## Committee on Graduate Studies (CGSR) Annual Report for the 2023-2024 Academic Year

## Membership:

*Elected Members:* S. Olson (MA, Chair), P. Shah (BUS, Secretary in Fall 23), R. Neamtu (CS, Secretary in C24), L. Vidali (BBT, Secretary in D24), D. Medich (PH), Y. Telliel (HUA).

*Ex-Officio:* T. Camesano (Dean of Graduate Studies), B. Vernescu (Vice President and Vice Provost for Research)

*Graduate Student Representative:* C. Ruhatiya (MTE)

*Invited Guests:* S. Miles (University Registrar), A. Wyglinski (Associate Dean of Graduate Studies), M. Terrio (Executive Director of Graduate Studies)

The entire committee had 27 regular meetings and Interim Committee Meetings during the summer and winter breaks to review academic dismissal appeals.

## 1. Petitions

- a. August 2023: Reviewed 1 academic dismissal appeal and approved
- b. January 2024: Reviewed 9 academic dismissal appeals and approved 9
- c. May 2024: Reviewed 6 academic dismissal appeals and approved 5
- 2. Elections and Appointments for AY 23-24
  - a. Elected and Appointed D. Medich (PH) as CGSR representative on Research Development Council
  - b. Elected and Appointed Frank Zou (MA) as CGSR representative on Conflict Management Committee
  - c. Sarah Olson (MA) as CGSR Chair served on Conflict Management Committee
  - d. Appointed Yunus Telliel (HUA) and Melissa Terrio (Executive Director of Graduate Studies) to Campus Wellness Coalition
  - e. Elected Terri Camesano (Dean of Graduate Studies) to a one-year appointment on the committee to review the Board of Trustees Outstanding Research and Creative Scholarship Award
- 3. Elections and Appointments for AY 24-25
  - a. D. Medich (PH) to continue serving on Research Development Council (will be finishing up a 3-year term)
  - b. Elected Chair of CGSR as follows Rodica Neamtu (A-term), Danielle Cote (B-term), Luis Vidali (C-term), and Purvi Shah (D-term)
  - c. Elected Secretary of CGSR as follows Sarah Olson (A-term) and Purvi Shah (B-term). Spring secretary to be determined later.
- 4. Discussions and Miscellaneous Items
  - a. Academic Calendar for 24-25
  - b. There is a need for standardized templates for courses, programs, and graduate catalog updates
  - c. Credits for co-located graduate and undergraduate courses

- d. Probationary periods for new programs and the metrics for assessing their performance
- e. Reviewed WPI's Conflict of Interest Policy
- f. Reviewed WPI's Institutional Base Salary Policy
- g. Experiential PhD
- h. Launch of the new graduate projects registration portal
- i. Items discussed with no vote in the AY 23-24
  - i. Updates to existing policies for redaction of graduate theses and dissertations by sponsors of graduate materials as an alternative embargo
  - ii. Policy for post-publication changes in submitted graduate works where needed to protect privacy and confidentiality
  - iii. Policy for optional or required GQP archiving for programs, following the same archiving policies as ETDs (graduate theses, dissertations, and reports)
  - iv. CAMP in Computer Science with Holy Cross
  - v. CAMP in Data Science with Holy Cross

## 5. Regular Business

- a. Approved Motions for Additions of Courses
  - i. Create ARCH 500 Thesis Research Seminar (CGSR: 8/31/23, Faculty: 10/5/23)
  - ii. Create ARCH 599 Design Thesis (CGSR: 8/31/23, Faculty: 10/5/23)
  - iii. Create SS 510 Principles of Epidemiology (CGSR: 9/28/23, Faculty: 4/11/24)
  - iv. Create IGS 502: Perspectives in Global Health (CGSR: 9/28/23, Faculty: 11/8/23)
  - v. Create IGS 555: Collaboration for a Better World Seminar Series (CGSR: 9/8/23, Faculty: 11/8/23)
  - vi. Create BUS 594 Capstone (CGSR: 10/12/23, Faculty: 11/8/23)
  - vii. Create ECE 576 Applied Cryptography and Physical Attacks (CGSF: 11/9/23, Faculty: 12/6/23)
  - viii. Create ECE 571: Machine Learning for Engineering Applications (CGSR: 11/9/23, Faculty: 12/6/23)
  - ix. Create ECE 575: Blockchain and Cryptocurrencies (CGSR: 11/9/23, Faculty: 12/6/23)
  - x. Create ECE 576 Applied Cryptography and Physical Attacks (CGSR: 11/16/23, Faculty: 12/6/23)
  - xi. Create CS 552/DS 552 Generative Artificial Intelligence (CGSR: 11/16/23, Faculty: 12/6/23)
  - xii. Create CS 553/DS 553 Machine Learning Development and Operations (CGSR: 11/16/23, Faculty: 12/6/23)
  - xiii. Create CS 554/DS 554 Natural Language Processing (CGSR: 11/16/23, Faculty: 12/6/23)
  - xiv. Create CS 555/DS 555 Responsible Artificial Intelligence (CGSR: 11/16/23, Faculty: 12/6/23)
  - xv. Create DS 557 Machine Learning for Engineering and Science Applications (CGSR: 11/16/23, Faculty: 12/6/23)

- xvi. Create RBE 511 Swarm Intelligence (CGSR: 11/16/23, Faculty: 12/6/23)
- xvii. Create RBE 575 Safety and Guarantees for Autonomous Robots (CGSR: 11/16/23, Faculty: 12/6/23)
- xviii. Create SS 560 Artificial Intelligence: Exploring Technology, Ethics, and Policy (CGSR: 11/16/23, Faculty: 12/6/23)
- xix. Create CS/DS 594 (CGSR: 11/16/23, Faculty: 12/6/23)
- xx. Create AE 601 Advanced Special Topics (CGSR: 12/7/23, Faculty: 1/17/24)
- xxi. Create AE 602 Independent Study (CGSR: 12/7/23, Faculty: 1/17/24)
- xxii. Create AE 690 Pre-Dissertation Research (CGSR: 12/7/23, Faculty: 1/17/24)
- xxiii. Create AE 691 Ph.D. Qualifying Exam (CGSR: 12/7/23, Faculty: 1/17/24)
- xxiv. Create AE 692 Dissertation Research (CGSR: 12/7/23, Faculty: 1/17/24)
- xxv. Create AE 693 Ph.D. Dissertation Proposal (CGSR: 12/7/23, Faculty: 1/17/24)
- xxvi. Create AE 694 Ph.D. Dissertation Defense (CGSR: 12/7/23, Faculty: 1/17/24)
- xxvii. Create RBE 593 Directed Research for Capstone Experience (CGSR: 12/14/23, Faculty: 1/17/24)
- xxviii. Create RBE 535 Printable Robotics (CGSR: 2/1/24, Faculty: 3/13/24)
  - xxix. Create RBE 544 Imaging for Robotics (CGSR: 2/1/24, Faculty: 3/13/24)
  - xxx. Create BB 526 Synthetic Biology and co-locate with BB 4260 (CGSR: 2/8/24, Faculty: 3/13/24)
  - xxxi. Create BB 550 and co-locate with BB 4050 Cancer Biology (CGSR: 2/8/24, Faculty: 3/13/24)
- xxxii. Create BUS 692 Teaching Practicum (CGSR: 2/15/24, Faculty: 3/13/24)
- xxxiii. Create CE 550 Community and Environmental Analysis (CGSR: 2/15/24, Faculty: 3/13/24)
- xxxiv. Create FIN 698 Directed Research (CGSR: 2/15/24, Faculty: 3/13/24)
- xxxv. Create ETR 598 Special Topics (CGSR: 3/14/24, Faculty: 4/11/24)
- xxxvi. Create MIS 598 Special Topics (CGSR: 3/14/24, Faculty: 4/11/24)
- xxxvii. Create OBC 598 Special Topics (CGSR: 3/14/24, Faculty: 4/11/24)
- xxxviii. Create DEV 550 Policy Evaluation (CGSR: 3/28/24, Faculty: 4/11/24)
- xxxix. Create BUS 597 Independent Study (CGSR: 4/25/24, Faculty: 5/7/24)
  - xl. Create CS 591 Fundamentals in Cybersecurity (CGSR: 4/18/24, Faculty: 5/7/24)
  - xli. Create CS 592 Introduction to Digital Forensics for Teachers (CGSR: 4/18/24, Faculty: 5/7/24)
  - xlii. Create CS 593 Cyber Security Teaching Methods (CGSR: 4/18/24, Faculty: 5/7/24)
  - xliii. Create CS 594 Advanced Digital Forensics and Incident Response for Teachers (CGSR: 4/18/24, Faculty: 5/7/24)
  - xliv. Create EDU 500 Foundations of Integrated STEM Education (CGSR: 4/18/24, Faculty: 5/7/24)
  - xlv. Create EDU 510 Classroom Climate that Supports Diverse STEM Learners (CGSR: 4/18/24, Faculty: 5/7/24)

- xlvi. Create EDU 520 STEM and Project Based Learning Curriculum (CGSR: 4/18/24, Faculty: 5/7/24)
- xlvii. Create EDU 530 Performance Assessments in STEM Education (CGSR: 4/18/24, Faculty: 5/7/24)
- xlviii. Create EDU 540 Informal STEM Education (CGSR: 4/18/24, Faculty: 5/7/24)
- xlix. Create EDU 550 Collaboration and Teamwork in STEM Education (CGSR: 4/18/24, Faculty: 5/7/24)
  - 1. Create EDU 580 Special Topics in STEM Education (CGSR: 4/18/24, Faculty: 5/7/24)
  - li. Create EDU 590 Graduate Project Seminar (CGSR: 4/18/24, Faculty: 5/7/24)
  - lii. Create EDU 597 Integrated STEM Capstone project (CGSR: 4/18/24, Faculty: 5/7/24)
- liii. Create EDU 598 Integrated STEM Graduate Qualifying Project (CGSR: 4/18/24, Faculty: 5/7/24)
- liv. Create EDU 599 Integrated Stem Thesis (CGSR: 4/18/24, Faculty: 5/7/24)
- lv. Create FP 582 Quantitative Risk Analysis (CGSR: 4/18/24, Faculty: 5/7/24)
- lvi. Create FP 585 Explosion Dynamics (CGSR: 4/18/24, Faculty: 5/7/24)
- lvii. Create FP 588 Practical Explosion Analysis: Case Studies in Energy Industry (CGSR: 4/18/24, Faculty: 5/7/24)
- b. Approved motions for Course Deletions
  - i. Remove AE 6093 Advanced Special Topics (CGSR: 12/7/23, Faculty: 1/17/24)
  - ii. Remove AE 6098 Pre-Dissertation Research (CGSR: 12/7/23, Faculty: 1/17/24)
  - iii. Remove AE 6999 Ph.D. Qualifying exam (CGSR: 12/7/23, Faculty: 1/17/24)
  - iv. Remove AE 6099 Dissertation Research (CGSR: 12/7/23, Faculty: 1/17/24)
- c. Approved motions to create new M.S. Programs
  - i. M.S. Program in Global Health (CGSR: 9/28/23, Faculty: 11/8/23)
  - ii. STEM-certified MBA in Analytics (CGSR: 10/12/23, Faculty: 11/8/23)
  - iii. M.S. Program in Artificial Intelligence (CGSR: 11/16/23, Faculty: 12/6/23)
  - iv. M.S. Program in Integrated Stem Education (CGSR: 4/18/24, Faculty: 5/7/24)
  - v. M.S. program in Explosion Protection Engineering (CGSR: 4/18/24, Faculty: 5/7/24)
- d. Approved motions to create a new PhD program
  - i. Ph.D. program in Financial Technology (CGSR: 2/15/24, Faculty: 3/13/24)
- e. Deletions of Programs
  - i. Remove Professional MS in Financial Mathematics and associated B.S./M.S. (CGSR: 4/18/24, Faculty: 5/7/24)

- f. Approved Motions for New Certificate Programs
  - i. Certificate Program in Artificial Intelligence (CGSR: 11/16/23, Faculty: 12/6/23)
  - ii. Certificate Program in Artificial Intelligence in Business within the WBS (CGSR: 3/28/24, Faculty: 4/11/24)
  - iii. Certificate Program in Secure Programming (CGSR: 4/18/24, Faculty: 5/7/24)
  - iv. Certificate Program in Teaching Cyber Security for High School Teachers (CGSR: 4/18/24, Faculty: 5/7/24)
  - v. Certificate in Explosion Protection Engineering (CGSR: 4/18/24, Faculty: 5/7/24)
- g. New Bachelors/Masters Programs
  - i. B.S./M.S. degree path in Artificial Intelligence (CGSR: 11/26/23, Faculty: 12/6/23)
  - ii. Add a Bachelors/Masters option in the MFA Program in IMGD (CGSR: 4/18/24, Faculty: 5/7/24)
  - iii. B.S./M.S. degree path in Explosion Protection Engineering (CGSR: 4/18/24, Faculty: 5/7/24)
- h. Approved Motions related to Collaborative Accelerated Master's Programs (CAMP) Frameworks between Partner Institutions and WPI
  - i. Approved a template for CAMP Framework between Partner Institutions and WPI (CGSR: 1/25/24, Faculty: 2/14/24)
  - ii. Approved a CAMP between Assumption University and WPI (CGSR: 1/25/24, Faculty: 2/14/24)
  - iii. Approved a CAMP in Neuroscience with Assumption (CGSR: 1/25/24, Faculty: 2/14/24)
  - iv. Approved a CAMP between Holy Cross and WPI (CGSR: 2/15/24, Faculty: 3/13/24)
  - v. Approved a CAMP between Utica and WPI (CGSR: 4/25/24, Faculty: 5/7/24)
  - vi. Approved a CAMP between Framingham State and WPI (CGSR: 4/25/24, Faculty: 5/7/24)
- i. Approved Motions to Update Existing Courses
  - i. Update course description and title of MIS 520 Artificial Intelligence and its Ethical Applications in Business (CGSR: 9/21/23, Faculty: 10/5/23)
  - ii. Update course description of FIN 530 Cryptocurrencies and Financial Markets (CGSR: 9/21/23, Faculty: 10/5/23)
  - iii. Add CS 551 cross listing to DS 551 Reinforcement Learning (CGSR: 11/9/23, Faculty: 12/6/23)
  - iv. Update course description and credits for BB 501 Seminar (CGSR: 11/9/23, Faculty: 12/6/23)
  - v. Modify the title of CS 534 to Introduction to Artificial Intelligence (CGSR: 11/16/23, Faculty: 12/6/23)
  - vi. Modify the RBE 596 Robotics Engineering Practicum (CGSR: 12/14/23, Faculty: 1/17/24)

- vii. Removed the ME cross-listings from RBE 580, 521, 530, and 510 (CGSR: 1/11/24, Faculty: 2/14/24)
- viii. Modify the cross-listing of ME 501/RBE 501 Robot Dynamics to ME 528/RBE 501 (CGSR: 1/11/24, Faculty: 2/14/24)
- ix. Add ME cross-listing of ME 527 to RBE 500 Foundations of Robotics (CGSR: 1/11/24, Faculty: 2/14/24)
- x. Modify CHE 501 Seminar to now be CHE 501 Professional Development for Chemical Engineering Doctoral Students (CGSR: 1/25/24, Faculty: 2/14/24)
- xi. Modify CHE 502 Seminar to now be CHE 502 Professional Development for Chemical Engineering Master's Students (CGSR: 1/25/24, Faculty: 2/14/24)
- xii. Modify title and description of BB 590 Capstone Experience in Biology and Biotechnology (CGSR: 2/8/24, Faculty: 3/13/24)
- xiii. Update title and description of FIN 598 Special Topics (CGSR: 3/14/24, Faculty: 4/11/24)
- xiv. Update title and description of MKT 598 Special Topics (CGSR: 3/14/24, Faculty: 4/11/24)
- xv. Update title and description of MIS 581 Policy and Strategy for Information Technology and Analytics (CGSR: 3/28/24, Faculty: 4/11/24)
- xvi. Update DS 5006 Machine Learning for Engineering and Science Applications to DS 5006 (CGSR: 3/14/24, Faculty: 4/11/24)
- xvii. Update MIS 585 User Experience Design course description (CGSR: 4/18/24, Faculty: 5/7/24)
- xviii. Update title and description of BUS 598 Independent Study (CGSR: 4/25/24, Faculty: 5/7/24)
- j. Approved Motions to establish a specialty in AI in different degree programs
  - i. Establish a specialty in AI in Business within the MBA program (CGSR: 3/28/24, Faculty: 4/11/24)
  - ii. Establish a specialty in AI in Business within the MS in Business Analytics program (CGSR: 3/28/24, Faculty: 4/11/24)
  - iii. Establish a specialty in AI in Business within the MS in Information Technology program (CGSR: 3/28/24, Faculty: 4/11/24)
- k. Approved Motions to Update Existing Programs and Associated Graduate Catalog Entries
  - i. BBT revised graduate catalog entries related to BB 501 Seminar (CGSR: 11/9/23, Faculty: 12/6/23)
  - ii. ECE updated course numbers for the M.S. in Cyber Security (MS-SEC) in graduate catalog (CGSR: 11/16/23, Faculty: 12/6/23)
  - iii. AE modified the credit requirements for the Ph.D. in Aerospace Engineering (CGSR: 12/7/23, Faculty: 1/17/24)
  - iv. RBE modified requirements for the non-thesis MS program in RBE (CGSR: 12/14/23, Faculty: 1/17/24)
  - v. RBE modified the Core Robotics Engineering Electives in MS program in RBE (CGSR: 12/14/23, Faculty: 1/17/24)

- vi. Materials Engineering and Manufacturing Engineering updated Doctoral Qualifying / Comprehensive Examination requirements (CGSR: 1/11/24, Faculty: 2/14/24)
- vii. Chemical Engineering updated text related to new course title and requirements for CHE 501/502 (CGSR: 1/25/24, Faculty: 2/14/24)
- viii. Modify Engineering Context requirement for RBE MS (CGSR: 2/8/24, Faculty: 3/13/24)
- ix. Replace minor requirement in PhD 60 program in ECE (CGSR: 2/15/24, Faculty: 3/13/24)
- x. Modify requirements for the B.S./M.S. program in Management (CGSR: 2/15/24, Faculty: 3/13/24)
- xi. Modify BS/MS Program description in IMGD (CGSR: 4/18/24, Faculty: 5/7/24)
- xii. Reduce credit requirements for the MFA in IMGD (CGSR: 4/18/24, Faculty: 5/7/24)
- xiii. Modify the MS and BS/MS requirements in Bioinformatics and Computational Biology (CGSR: 4/18/24, Faculty: 5/7/24)
- xiv. Modify degree requirements for PhD in Mathematical Sciences (CGSR: 4/25/24, Faculty: 5/7/24)
- 1. Updates to Graduate Catalog
  - i. Approved a motion to modify PhD residency requirements (CGSR: 4/25/24, did not make it to May faculty meeting)
- m. Updates to ETDs (Electronic Theses and Dissertations)
  - i. Approved a motion to create a policy for embargoes of graduate student works (CGSR: 4/25/24, did not make it to May faculty meeting)
  - ii. Approved a motion to create a policy for submitting errata for archived graduate student works (CGSR: 4/25/24, did not make it to May faculty meeting)
- n. Individually Designed Ph.D.
  - i. Approved a motion for two individually designed Ph.D.'s in Sustainable Development Engineering (CGSR: 11/21/24)
  - ii. Approved a motion for an individually designed Ph.D. in Digital Development (CGSR: 11/26/24)