Collaborative Accelerated Master’s Programs Framework between WPI and Other Institutions

CGSR Motions for Discussion
Jan. 2024 Faculty Meeting
Inspiration & Model for Framework

- Same idea of WPI internal BS/MS Programs:

  ![Diagram showing overlap in Bachelor's and MS degrees](image)

  - Overlap: double-counting credits

- WPI has well-established rules for this double-counting
General Framework

- Collaborative Accelerated Master’s Programs Framework

**Course-counting rules:**
- up to 2 eligible senior undergrad courses from Partner Inst.
- *All internal WPI rules apply:*
  - credit-counting rules and limits same as internal BS/MS program
  - WPI rules and limits on graduate credit transfers apply
  - ...
Rationale: *Win – win - win*

- **Win for Students:**
  - Ability to pursue a master’s degree at WPI in an accelerated manner and in a way that is synergistic with their bachelor’s degree

- **Win for WPI:**
  - Attract strong students from our partner institutions into our graduate programs
  - One of WPI’s strategic goals: growth and strengthening of our graduate programs
  - Strengthen existing collaborations with partners

- **Win for the Partner Institution:**
  - Provide pathways for their students
  - Strengthen existing collaborations with WPI
Collaborations under Development

• **With Assumption University:**  (Motion 2)
  o In Neuroscience, reviewed & approved by CGSR (Motion 3)
  o Planned: Global Health, MME, Cybersecurity

• **With Holy Cross:**
  o In the works: CS, DS, MME, ECE

• **With Framingham State University:**
  o In the works: Neuroscience, DS, Medicinal Chemistry

• **With Utica University:**
  o In the works: engineering

• **With Smith College:**
  o starting conversations about Neuro, Math, Bio, BCB, CS
Template for these Collaborations

Any WPI Dept./Program that confers a master’s degree in Y may opt-in to participate in the collaboration with a specific partner.

Collaborative Accelerated Master’s Programs Framework between WPI and Partner Inst. X

General Rules and Policies

- Student Eligibility
- Application & admission processes
- General course-counting rules
- ...

Template for Program Y’s participation in a Collaborative Framework is provided in Motion 1

Program Y can add its own (possibly stricter) requirements & rules

Template for a Collaborative Framework is provided in Motion 1

Worcester Polytechnic Institute
Sample Instantiation of the Template

Any WPI Dept./Program that confers a master’s degree in Y may opt-in to participate in the collaboration with Assumption University.

Collaborative Accelerated Master’s Programs Framework between WPI and Partner Inst. X

General Rules and Policies

- Student Eligibility
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Collaborative Accelerated Master’s Programs Framework between WPI & Assumption Univ.

General Rules and Policies

- Student Eligibility
- Application & admission processes
- General course-counting rules
- ...

Template
Why having a Template?

- Facilitates development and CGSR’s & WPI Faculty’s review of similar future collaborations with other partner institutions

- Facilitates development and CGSR’s & WPI Faculty’s review of WPI master’s programs’ participation in a Collaborative Framework with X

- Provides consistency and transparency across these collaborations

- Can be adapted/overwritten as needed
Students enrolled in a Collaborative Accelerated Master’s Program in Y as part of this Collaborative Framework:

- Bachelor’s degree at Partner Institution X
- Master’s degree in Y at WPI

must satisfy all the requirements of their bachelor’s degree at X

&

must satisfy all the requirements of their master’s in Y at WPI
Framework Template: Applications & Admission

• Eligibility
  o Students in majors relevant to the master’s degree Y or who otherwise have the necessary background
  o Min. overall GPA of 3.0 (exceptions by petition)

• Applications & Admissions: Same as for internal BS/MS
  o Statement of purpose, academic transcript(s), 2 LORs
  o Expected to apply during junior year
  o Becomes a grad student at WPI after graduating with bachelor’s from X
  o “Gap” years allowed between finishing bachelor’s and starting master’s:
    ▪ Up-to 3 academic years
      o WPI’s internal BS/MS gap is 5 years
Framework Template: Course-Counting Rules

Bachelor’s degree at Partner Institution X  Master’s degree in Y at WPI

Courses/credits taken by student as an undergrad that may count toward master’s in Y

- Up to 2 eligible senior-level, advanced courses from X
  - with a grade of “B-” or better
  - eligible courses determined by Program Y (Plan of Study)
  
  This upper limit (≤ 2) imposed by NECHE

- When applicable (e.g., HECCMA schools):
  - Courses taken at WPI while student is an undergrad at X
    - Undergrad courses: typically, same that count for the internal BS/MS in Y
    - Grad courses: typically, same that count for the master’s program in Y

- All WPI rules and limits on credit-counting, double-counting, and credit transfer apply
- Credit conversion is the same used at WPI: 3 undergrad credits = 2 grad credits
  - Default: undergrad courses from X carry 3 undergrad credits at WPI
  - unless otherwise chosen by Program Y on a course-by-course basis
Program Y Participation Template

Program Y participation in a Collaborative Framework with a specific partner institution X

- Adds information specific to the master’s degree in Y and may add and/or overwrite rules in the Collaborative Framework with X:
  - Additional student eligibility criteria (if any)
  - Recommended background, prerequisites, and/or additional guidelines for students who wish to pursue the Y-Program
  - A “Plan of Study Form for the Collaborative Accelerated Master’s Program in Y between X and WPI”
    - degree requirements, eligible courses, program-specific limits, ...
  - Endorsement from the faculty in program Y
Plan of Study: Illustration (Full Plan of Study in Motion 3)

Collaborative Accelerated Master’s Program in Neuroscience

Plan of Study

See the WPI Graduate Catalog and the Neuroscience webpages for additional information about the Neuroscience MS degree requirements.

- **Core Neuroscience Coursework Requirement**: at least 19 graduate credits.

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<th>Course #</th>
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<th>Semester</th>
<th>Grad credits</th>
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- **Neuroscience courses**: at least 9 graduate credits from the list of Eligible Neuroscience Courses

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- **Biology courses**: at least 3 graduate credits from the list of Eligible Biology & Biotechnology Courses

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- **Computer Science courses**: at least 3 graduate credits from the list of Eligible Computer Science Courses

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- **Bioethics course**: at least 1 graduate credit. For example, BB 551 Research Integrity in the Sciences or ID 500
LISTS OF ELIGIBLE COURSES

Eligible Neuroscience courses:

WPI Graduate Courses (3 graduate credits each):
NEU 501 Neuroscience
NEU 502 Neural Plasticity
NEU 503 Computational Neuroscience
NEU 504 Advanced Psychophysiology
NEU 505 Brain-Computer Interaction

Assumption Undergraduate Courses:
BIO415 Principles of Neuroscience (3 graduate credits)
  • Students can receive credit towards their M.S. degree for BIO415 or for NEU501, but not for both.
BIO490 Independent Study with Neuroscience Focus (2 graduate credits)
  • This ISC may be conducted with Assumption University and/or WPI faculty.

Eligible Biology and Biotechnology courses:

WPI Graduate Courses (3 graduate credits each):
BBT 561 Model Systems: Experimental Approaches and Applications
BBT 581/BCB 501 Bioinformatics

WPI Undergraduate Courses (2 graduate credits each):
BB/CH 4190. Regulation of Gene Expression
BB 4260. Synthetic Biology

Assumption Undergraduate Courses:
BIO420 Developmental Biology (3 graduate credits)
BIO430 Comparative Physiology (3 graduate credits)
General Template: Administration & Oversight

- **WPI Y-Program Coordinator:**
  - Implementation & administration of the accel. master’s in Y
  - Academic advising of students in this master’s program

- **Collaborative Framework Coordinators:**
  - One at WPI
  - One at X

- **Responsibilities:**
  - Implementation & administration of the framework
  - Outreach & promotion of framework
  - General academic advising and mentoring of students
  - Coordination with stakeholders at each institution

Collaborative Accelerated Master’s Programs Framework between WPI and Partner Inst. X

**General Rules and Policies**

- Student Eligibility
- Application & admission processes
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- ...
General Template: Impact & Resources

• Impact on Degree Requirements:
  – None

• Resources Needed:
  – Incentive for the WPI Coordinator of a Collaborative Framework with a partner institution
    ▪ to champion the collaboration and make it successful/fruitful
Input and Endorsements

WPI:
- Faculty from several Schools, Department and Programs
- Endorsement from Neuroscience Faculty
- Committee on Graduate Studies and Research (CGSR)
- Secretary of the Faculty, Mark Richman
- Provost, Art Heinricher
- Dean of Graduate Studies, Terri Camesano
- Dean of Arts and Sciences, Jean A. King
- Dean of Engineering, John McNeill
- Dean of The Business School, Debora Jackson
- Dean of The Global School, Mimi Sheller
- Dean of Undergraduate Studies, Arne Gericke
- Assoc. Dean Graduate Studies, Alex Wyglinski
- Registrar, Sarah Miles
- Executive Director of Graduate Recruitment and Admissions, Melissa Terrio
- Associate General Counsel, Amy Fabiano

Partner Institutions:
- Counterparts at partner institutions, including Assumption University and Holy Cross

New England Commission of Higher Education (NECHE):
- Senior Vice President of NECHE, Patricia O'Brien, SNDdeN.
Thank you!

Any Questions & Feedback?
Additional Slides
Course Registration at WPI

For HECCMA (Higher Education Consortium of Central Massachusetts) Schools:

• Undergraduate students can cross-register for up to 2 courses per academic year at WPI:
  o No additional tuition for undergraduate courses
  o WPI will waive additional tuition for up to 2 graduate courses for students admitted to a collaborative framework while they are still undergrad students at the partner institution