

# TRANSFER ARTICULATION AGREEMENT

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**Quinsigamond Community College**

**And**

**Worcester Polytechnic Institute**

(Updated 2018)

**Engineering-Biomedical Engineering Option Associate in Science Degree**

**to**

**Admission to Bachelor of Science Degree in Biomedical Engineering**

Worcester Polytechnic Institute (WPI) and Quinsigamond Community College (QCC) recognize that for some students, the path to a technical education may begin at a community college. To assist students who wish to pursue such an option, WPI and Quinsigamond Community College formalized this pattern by signing a transfer articulation agreement in 1989. This agreement was last updated in 2010.

The purpose of this document is to reaffirm/update that agreement based on a thorough review of the current courses taught in QCC's **Engineering-Biomedical Engineering Option** associates degree program by the appropriate WPI department head/ designee. Further reviews will be conducted tri-annually or when significant changes occur to the curriculum of either institution.


Under this agreement, the terms of which are described on the following pages, WPI agrees to accept students from QCC as sophomores or juniors depending on their programs of study in engineering.


### Terms of Agreement

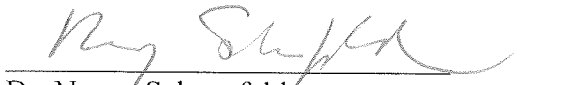
In this agreement between WPI and QCC, both institutions agree to the following items:


1. WPI agrees to refer potentially qualified students to QCC for pre-entrance course preparation as well as first year-level course work leading to eventual transfer to a four-year engineering program.
2. WPI agrees to accept as advanced sophomores all graduates of QCC who have completed the attached program of study and, upon proper application and the positive recommendation of QCC, have met the admissions qualifications as set forth by WPI's Undergraduate Admissions Office. In general, all students with a 3.3 GPA or higher will be accepted from QCC. Students with grade-point averages below 3.3 will be considered on a case-by-case basis.
3. In addition, WPI agrees to accept all college-level courses within the QCC Engineering-Biomedical Engineering Option program curriculum as laid out in this articulation agreement, provided courses are completed with grades of "B" or higher. See Appendix A. Please note: WPI does not have a cap for the number of credits accepted. However, students have to meet a residency requirement of 72 credits (8 units, or two full academic years).
4. With careful planning, students completing the above requirements may be able to graduate from WPI in two and one-half years.
5. Faculty and administrative staff from both institutions should be encouraged to visit each other's campuses and confer on matters of curriculum content and the program details.
6. The program will be promoted through each college's website, academic catalog, and appropriate marketing materials.
7. This agreement is effective on the date of signature, and will continue in effect for three years from that date. Substantive changes in the courses or program of either institution will necessitate a review of the agreement. This agreement may be terminated or re-negotiated at the request of either institution given due protection to those students enrolled at either institution who expect to pursue this plan of study.


Institutional Approvals


  
Dr. Luis G. Pedraja  
President  
Quinsigamond Community College


  
Dr. Laurie Leshin  
President  
Worcester Polytechnic Institute

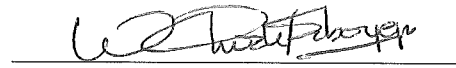
  
Dr. Nancy Schoenfeld  
Interim Vice President of Academic Affairs  
Quinsigamond Community College

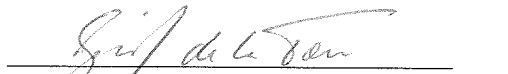
  
Dr. Bruce Bursten  
Provost  
Worcester Polytechnic Institute

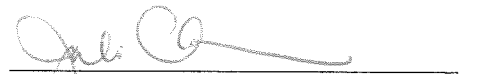
  
Kathleen Rentsch  
Dean, School of Business, Engineering  
& Technology  
Quinsigamond Community College

  
Dr. Art Heinricher  
Dean of Undergraduate Studies  
Worcester Polytechnic Institute

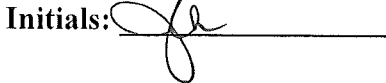
  
Dadbeh Bigonahy  
Professor of Engineering and Sciences  
Quinsigamond Community College

  
Dr. Oluwole Soboyejo  
Dean of Engineering  
Worcester Polytechnic Institute

  
Daniel de la Torre  
Coordinator of Transfer & Articulation  
Quinsigamond Community College

  
Julie Chapman  
Director of Recruitment Partnerships  
Worcester Polytechnic Institute

Confirmed date of agreement signed by all parties: 5/1/18

Initials: 

**QCC COURSES****WPI EQUIVALENT****BIOLOGY**

BIO 107  
 BIO 259  
 BIO 260  
*BIO 259 & BIO 260*

BB 1001 Introduction to Biology  
 no credit awarded for individual course  
 no credit awarded for individual course  
*BB 2550 Cell Biology*

**CHEMISTRY**

CHM 123  
 CHM 124  
 CHM 123 & 124

CH 1010 Chemical Properties, Bonding, & Forces  
 CH 1030 Kinetics, Equilibrium & Thermodynamics  
 CH 1010 Chemical Properties, Bonding, & Forces; CH 1020 Chemical Reactions, & 1030 Kinetics, Equilibrium & Thermodynamics

**ENGINEERING**

ERG 211  
 ERG 221  
 ERG 223  
 ERG 225

ES 2001 Introduction to Materials Science  
 ES 2501 Introduction to Static Systems  
 ES 3001 Introduction to Thermodynamics  
 ES 2502 Stress Analysis or CE 2001 Analytical Mechanics

**MATHEMATICS**

MAT 233  
 MAT 234  
 MAT 235  
*MAT 233 & 234*  
*MAT 233, 234, & 235*  
 MAT 237  
 MAT 238  
 MAT 243

MA 1021 Calculus I  
 MA 1022 Calculus II  
 MA 1024 Calculus IV  
*MA 1021-1023 Calculus I-III*  
*MA 1021-1024 Calculus I-IV*  
 MA 2611 Applied Statistics I  
 MA 2051 Ordinary Differential Equations  
 MA 2071 Matrices and Linear Algebra I

**Special Note:**

*All Math courses, with the exception of MAT 243, require a grade of "B" or better to transfer. A "C" or better is required for MAT 243.*

**PHYSICS**

PHY 105  
 PHY 106  
 PHY 205

PH 1110 General Physics - Mechanics  
 PH 1000 General Physics elective credit  
 PH 1120 General Physics – Electricity & Magnetism

**HUMANITIES AND ARTS**

ENG 101  
 ENG 102

WR 1010 Elements of Writing  
 EN 1251 Introduction to Literature

In addition to the above, courses taken in the subjects below\* will transfer towards the Humanities and Arts requirement at WPI. Please note that only courses taken at the 100 level or higher are approved for transfer. In addition, students can only transfer elementary level language courses if they plan to fulfill the WPI Humanities and Arts requirement in that foreign language. Please note: All courses require a grade of "B" or better to transfer.

*\*Art, Arabic, Mandarin, English, German, History, Humanities, Music, Philosophy, Religion, Spanish, and Theatre*

**SOCIAL SCIENCES**

Social science courses are not included in the articulation agreement and will be evaluated on an individual basis.

## QCC to WPI Biomedical Engineering Articulation Agreement

QCC Course #	QCC Course Title	WPI Course #	WPI Course Title
Semester 1			
BIO 107	Principles of Biology I	BB 1001	Introduction to Biology
CHM 123	Principles Of Chemistry for Engineers I	CH 1010	Chemical Properties, Bonding, & Forces *
ENG 101	Composition I	WR 1010	Elements of Writing
MAT 233	Calculus I	MA 1021	Calculus I **
***	Social Science Elective	***	***
Semester 2			
BIO 259	Cell Biology	****	****
CHM 124	Principles of Chemistry for Engineers II	CH 1030	Kinetics, Equilibrium & Thermodynamics *
ENG 102	Composition II	EN 1251	Introduction to Literature
MAT 234	Calculus II	MA 1022	Calculus II **
PHY 105	General Physics I	PH 1110	General Physics—Mechanics
Semester 3 (Summer)			
MAT 237	Probability and Statistics for Engineers & Scientists	MA 2611	Applied Statistics I
PHY 106	General Physics II	PH 1000	Basic Science or Free Elective
Semester 4			
BIO 260	Molecular Biology	****	****
ERG 211	Introduction to Materials Science	ES 2001	Introduction to Materials Science
ERG 221	Statics	ES 2501	Introduction to Static Systems
MAT 235	Calculus III	MA 1024	Calculus IV **
Semester 5			
ERG 223	Thermodynamics	ES 3001	Introduction to Thermodynamics
ERG 225	Strength of Materials	ES 2502	Stress Analysis
MAT 238	Differential Equations	MA 2051	Ordinary Differential Equations
MAT 243	Linear Algebra	MA 2071	Matrices and Linear Algebra I
PHY 205	General Physics III	PH 1120	General Physics—Electricity and Magnetism

\*Earning a B or better in both CHM 123 and CHM 124 at QCC will result in receiving transfer credit for CH 1010, CH 1020, and CH 1030 at WPI.

\*\*Earning a B or better in all courses of the calculus series at QCC (MAT 233, MAT 234, and MAT 235) will result in receiving transfer credit for MA 1021, MA 1022, MA 1023, and MA 1024 at WPI.

\*\*\*The Social Science elective is not included in the articulation agreement and will be evaluated on an individual basis.

\*\*\*\*Earning a B or better in both BIO 259 and BIO 260 at QCC will result in receiving transfer credit for BB 2550 at WPI.