



Articulation Agreement

Between

Wentworth Institute of Technology

550 Huntington Ave, Boston, MA 02115

and

Massachusetts Bay Community College

50 Oakland Street, Wellesley Hills, MA 02481

September 2021

WHEREAS this articulation agreement (Agreement) has been established between Massachusetts Bay Community College (MassBay) and Wentworth Institute of Technology. This Agreement was developed with the intent of facilitating the student transfer process from Massachusetts Bay Community College (MassBay) to Wentworth Institute of Technology (Wentworth). This Agreement will serve as a guideline for students enrolled in the **Associate of Science program in Electrical and Computer Engineering, Associate of Science in Mechanical Engineering** at Massachusetts Bay Community College who wish to transfer into the **Bachelor of Science in Computer, Electrical, or Mechanical Engineering Program** at Wentworth Institute of Technology.

Given the physical proximity, service area, commitment to diversity, and the mission of the two institutions, Wentworth Institute of Technology and MassBay have agreed to form this Agreement. Both institutions are regionally accredited by the New England Association of Schools and Colleges (NEASC) with long-standing histories in higher education. This Agreement is designed to make opportunities for learning accessible to a wider student population in the surrounding communities.

Students successfully completing the Associate of Science Degree in Electrical & Computer Engineering or the Associate of Science in Mechanical Engineering at MassBay, in accordance with the minimum standards and admissions requirements as set in this Agreement, and otherwise satisfies the Wentworth Institute of Technology standards for admission, as may be determined from time to time in Wentworth's sole discretion, will be admitted to Computer, Electrical or Mechanical Engineering program at Wentworth Institute for Technology. Students who do not meet the minimum standards, or Wentworth's standards for admission will be considered for admission to Wentworth on a case-by-case basis.

TERMS AND CONDITIONS

Administrative Matters:

At least one academic administrator or faculty member from each institution will be appointed to act as liaisons for the implementation of this Agreement, to serve as primary contact persons, and to communicate any changes to this Agreement to the respective faculty members, advisors, admissions counselors, and others. Responsibility for oversight of this Agreement rests with the Director of Undergraduate Admissions (or designee) at Wentworth Institute of Technology and the Provost (or designee) at MassBay. Both parties agree to communicate annually regarding any changes in their respective programs that may affect this Agreement.

Wentworth and MassBay agree to collaborate in the areas of publicity, marketing, recruitment, curriculum, and transfer efforts as follows:

- All announcements, publicity, marketing, and recruitment activities by either institution relative to this Agreement will be done following a plan collaboratively developed and agreed to by both parties. In the event such a plan has not been developed, the parties will require the approval of the other party on all materials before the materials are distributed.
- Faculty and staff at both institutions will share information about the existence of this Agreement with interested and qualified students at MassBay, and both institutions will provide counseling and advising about this Agreement to MassBay's current and prospective students.

Student Admissions and Enrollment Guidelines:

- Interested Mass Bay Community College students must complete the required transfer admissions documents including an application, an essay, a recommendation, official transcripts from all prior colleges attended and Wentworth's Transfer Report completed by an official of MBCC (detailed information of required documents can be found on Wentworth's website <https://wit.edu/admissions/transfer-students>.)
- Wentworth will waive the application fee for MassBay students applying to Wentworth under this Agreement.
- MassBay students who graduate with an associate degree in Electrical & Computer Engineering and have a cumulative GPA of at least 2.5 and meet all Wentworth's then-current admission requirements are guaranteed admission into the Bachelor of Science in Electrical and Computer Engineering program at Wentworth Institute of Technology. Once admitted, students are subject to all other policies and procedures as outlined in the then-current Wentworth Institute of Technology Academic Catalog and Student Handbook.
- MassBay students who graduate with an associate degree in Mechanical Engineering and have a cumulative GPA of at least 2.5 and meet all Wentworth's then-current admission requirements are guaranteed admission into the Bachelor of Science in Mechanical Engineering program at Wentworth Institute of Technology. Once admitted, students are subject to all other policies and procedures as outlined in the then-current Wentworth Institute of Technology Academic Catalog and Student Handbook.
- Wentworth Institute of Technology will accept up to 50% of the total required credits toward B.S. in Electrical or Computer Engineering (see Table 2) or Mechanical Engineering (see Table 6).
- Only courses with a grade of C or higher are eligible for transfer. Advanced Placement (A.P.), College-Level Examination Program (CLEP), and MassBay Challenge Exams completed and/or accepted by MassBay will be honored at Wentworth Institute of Technology to fulfill a requirement. Students seeking acceptance of credits through A.P. and/or CLEP must provide Wentworth Institute of Technology with official transcripts and official score sheets from The College Board for validation.
- If a student does not have the prerequisites level courses at Wentworth Institute of Technology, the student may be required to take the prerequisite course before taking upper-division courses. This will be up to faculty discretion with input from the student on relative past course work and may extend the period of study required to obtain the Bachelor's degree.
- Upon admission, MassBay transfer students will be accepted into the Junior year at Wentworth, and they will need to complete four semesters of coursework and two required CO-OPs to earn their Bachelor of Science degree in Electrical or Computer Engineering (see Tables 3 and 4) or Bachelor of Science degree in Mechanical Engineering (see Table 7).

Financial Aid/ Scholarship Opportunities

Students eligible to attend through this articulation agreement will be eligible to receive financial assistance through the Financial Aid office at Wentworth Institute of Technology. Students must complete the Free Application for Federal Student Aid (FAFSA). In addition, all transfer students are eligible for merit scholarships through the admission process.

Wentworth Institute of Technology participates in the Yellow Ribbon Program and the post 9/11 G.I Bill. Under these programs, Wentworth can contribute additional funds to help assist veterans in furthering their education. Veterans utilizing this Agreement are encouraged to meet with admissions staff at Wentworth for more information.

TERMS, AMENDMENTS, AND TERMINATION

This Agreement shall continue for a period of three (3) years. Additional program approvals may be added to this Agreement with the written Agreement of both institutions. This Agreement may be renewed with the mutual written consent of the parties. This Agreement may be terminated by either party for any reason upon written notice to the other with at least ninety days' notice prior to the effective date of termination or, if a violation of the Agreement occurs, may be terminated upon written notice. In the event of an early termination, Wentworth will honor the terms of this Agreement for MassBay students who have begun the application process prior to the effective date of the termination.

This Agreement is not assignable and may not be amended, revised, or modified, except in writing executed by all parties. Students admitted to the Massachusetts Bay Community College's Associate in Science Degree in Electrical and Computer Engineering program or the Associate in Science Degree in Mechanical Engineering program prior to such notification shall be admitted to Wentworth on the basis of this Agreement.

Massachusetts Bay Community College

Table 1: MassBay Associate in Science in Electrical and Computer Engineering Progra

Electrical & Computer Engineering Associate in Science

DIVISION OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

This comprehensive program provides students an overview of the electrical and computer engineering field. Students explore such areas as computer hardware, digital electronics, computer science, and engineering.

Upon successful completion, the Associate in Science Degree in Electrical and Computer Engineering is awarded.

PROGRAM FOOTNOTES

Students are advised to check transfer requirements at four year institutions.

- Some institutions require two Chemistry courses for specific engineering programs. CH 110 Principles of Chemistry I and CH 110 Principles of Chemistry II sequence is recommended in such cases.
- Students are encouraged to take an additional computer science course from the following list:
 - CS 206 Security Awareness
 - CS 223 Fundamentals of Information Technology
 - CS 220 Programming
 - CS 242 Linux System Management
 - CS 212 Systems Programming with C, *
 - CS 242 Computer Networks
 - ET 221 iCREAT II
- Students planning to transfer to Northeastern University Electrical Engineering program are encouraged to take MA 210 Introduction to Linear Algebra
- CO 232 Oral Communications requirement can be substituted for a Humanities elective
- EC 201 Principles of Macroeconomics requirement can be substituted for EC 202 Principles of Microeconomics or another Social Science elective
- CT 200 Critical Thinking requirement can be fulfilled by passing the Critical Thinking Challenge Exam

Humanities Electives:

Art, Communication, English (EN 203 or higher), Film, Foreign Language, Humanities, Literature, Music, Oral Communication, Philosophy, Photography, Sign Language, Theater Arts

Social Science Electives:

Anthropology, Economics, Geography, Government, History, Law, Psychology, Sociology

Quantitative skills is a MassBay graduation competency for associate degree programs. Prior to graduation, students must demonstrate this competency by completing a 200 level math course (not MAC), or placing into a 200 level mathematics course.

This program qualifies as an Alternative Transfer Agreement (MassTransfer) with select public institutions in Massachusetts. For more information, visit www.mass.edu/masstransfer

COURSE	COURSE TITLE	CREDITS
<i>First Year Semester 1</i>		
PY 103	Engineering Physics I w/ Lab	4
EN 101	English Composition I	3
MA 200	Calculus I	4
ET 111 *	iCREAT I	3
MN 100 *	Career Readiness and ePortfolio	1
CO 231 °	Oral Communications	3
	credits:	18
<i>First Year Semester 2</i>		
PY 104	Engineering Physics II w/ Lab	4
MN 225 **	Engineering Computation with Application Software	4
EN 102	English Composition II	3
MA 201	Calculus II	4
CT 100 °	Critical Thinking	3
	credits:	18
<i>Second Year Semester 1</i>		
CH 110	Principles of Chemistry I	4
EE 110 *	Circuit Analysis I	4
MA 202	Calculus III	4
EE 120 *	Digital Electronics	4
	credits:	16
<i>Second Year Semester 2</i>		
MA 212 **	Differential Equations	4
EE 115 **	Circuit Analysis II	4
EC 201 °	Principles of Macroeconomics	3
	Social Science Elective	3
	credits:	14
	Total Credits:	66

* Fall only course

** Spring only course

AY '21-'22

Table 2: Transfer credits Between MassBay and Wentworth for Electrical and Computer Engineering

First-Year Courses:

WIT Courses	Credits	MassBay Courses	Credits	Comments
MATH1750 Engineering Calculus I	4	MA200 Calculus I	4	
PHYS1250 Engineering Physics I	4	PY103 Engineering Physics I w/Lab	4	
ENGR1000 Introduction to Engineering	3	ET 111 iCREAT I	3	
ENGR1600 Fundamentals of CAD/CAM	1	Students need to take a CAM course @ WIT		
ENGR1800 Programming with MATLAB	1	MN125 – Engineering Computation with Application Software	4	
MATH1850 Engineering Calculus II	4	MA201 Calculus II	4	
PHYSICS1750 Engineering Physics II	4	PY104 Engineering Physics II w/Lab	4	
ENGR1500 Intro to Engineering Design	3	Students need to take ENGR3500 Engr. Jr Design or ENGR 1500 Intro. to Engr. Design		
ENGL1100 English I	4	EN101 Freshman English I	3	WIT requires 20 credits: 8 in English and 12 in Humanities and Social Sciences (HSS).
ENGL2200 English II	4	EN102 Freshman English II	3	These MBCC courses total 18 credits. Students are short 2 credits in HSS to com
Humanities or Social Sciences Elective	4	Humanities Elective	3	
		Social Sciences Elective	3	
		Humanities or Social Sciences Elective	3	
Humanities or Social Sciences Elective	4	CT100 Critical Thinking	3	

Second Year Courses:

WIT Courses	Credits	MassBay Courses	Credits	Comments
ELEC2250 Network Theory I	4	EE110 Circuit Analysis I	4	
ELEC2750 Network Theory II	4	EE115 Circuit Analysis II	4	
ELEC2275 Digital Logic	4	EE120 Digital Electronics	4	
ELEC2850 Microcontrollers Using C Prog.	4	Students need ELEC 2850 Microcontrollers and C Programming	4	
MATH2025 Multivariable Calculus	4	MA202 Calculus III	4	
MATH2500 Differential Equations	4	MA211 Differential Equations	4	
MATH2300 Discrete Math (CompE only)	4	Needs to be taken at Wentworth	4	
CHEM1100 Engr. Chemistry (E.E. only)	4	CH110 Principles of Chemistry I w/ Lab	4	
Technical or EPIC Elective (JR. course)	3	Computer Science Elective	4	

Bachelor of Science in Computer Engineering (BSCO)

Table 3: Program Plan to Complete Bachelor of Science in Computer Engineering at Wentworth

Year	Fall 2021				Spring 2022				Summer 2022				
	Course	R	L	C	Course	R	L	C	Course	R	L	C	
Junior	ELEC3150	3	2	4	Co-op Work Term I COOP3500	ELEC3225	1	4	Applied Prog. Con	1	4	3	
	ELEC3250	3	2	4		ENGR3500	2	4	Engineering Junior Design	2	4	4	
	ENGR1600	0	2	1		ELEC3550	3	2	Computer Networks for Engineers	3	2	4	
	ELEC2850	3	2	4		ELEC3600	4	0	Signals and Systems	4	0	4	
	ELEC3725	3	0	3		ELEC3200	3	2	Advanced Digital Circuit Design	3	2	4	
Total: 17				Total: 19				Total: 19					
Year	Fall 2022				Spring 2023				Summer 2023				
Senior	Co-op Work Term II COOP4500	MATH2100	4	0	4	Probability and Statistics for Engineers	4	0	4	ELEC4400	3	2	4
		ELEC4075	3	2	4	Engineering Operating Systems	3	2	4	MGMT3200	3	0	3
		ENGR5000	1	6	4	Engineering Senior Design I	1	6	4	ELECTIVE	2	0	2
		MATH2300	4	0	4	Discrete Mathematics	4	0	4	ENGR5500	1	6	4
		Elective	-	-	3	Technical Elective	-	-	3	Elective	-	-	3
		Total: 17				Total: 19				Total: 19			

Bachelor of Science in Electrical Engineering (BSEE)

Table 4: Program Plan to Complete Bachelor of Science in Electrical Engineering at Wentworth

Year	Fall 2021				Spring 2022				Summer 2022				
	Course	R	L	C	Course	R	L	C	Course	R	L	C	
Junior	MECH3599	3	2	4	Co-op Work Term I COOP3500	ELEC4475	3	2	4	ELEC4475	3	2	4
	ELEC3250	3	2	4		ENGR3500	2	4	4	ENGR3500	2	4	4
	ENGR1600	0	2	1		ELEC3350	3	0	3	ELEC3350	3	0	3
	ELEC3600	4	0	4		ELEC4050	3	2	4	ELEC4050	3	2	4
	ELEC2850	3	2	4		ELEC3150	3	2	4	ELEC3150	3	2	4
Total: 17				Total: 13				Total: 18					
Year	Fall 2022				Spring 2023				Summer 2023				
	Course	R	L	C	Course	R	L	C	Course	R	L	C	
Senior	Co-op Work Term II COOP4500	MGMT3200	3	0	3	ELEC4300	3	2	4	ELEC4300	3	2	4
		MATH2100	4	0	4	ENGR3250	3	0	3	ENGR3250	3	0	3
		ENGR5000	1	6	4	Elective	3	0	3	Elective	3	0	3
		Elective	2	0	2	ENGR5500	1	6	4	ENGR5500	1	6	4
		Total: 17				Total: 13				Total: 14			

Massachusetts Bay Community College

Table 5: MassBay Associate in Science in Mechanical Engineering Program

Mechanical Engineering		
Associate in Science		
<i>DIVISION OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS</i>		
<p>Mechanical engineers are active in all engineering functions of a product including creative design, research and development, production and management. Energy, airplanes, automobiles, space vehicles, machinery, earth-moving equipment and medical hardware are but a few examples of the infinite number of products that mechanical engineers have produced through their use of the basic laws of physical sciences.</p> <p>Upon successful completion, the Associate in Science Degree in Mechanical Engineering is awarded.</p> <p>CAREER PATHWAY Students are advised to select career pathway electives after careful consideration of their career choices in their second year. Some electives may not transfer to engineering programs at some four-year institutions.</p> <p>Career Pathway Electives: MN 118 Ethics for Engineers and Technologists EC 201 Principles of Macroeconomics (fall), EC 202 Principles of Macroeconomics (spring: recommended for transferring to UMass Lowell), BI 110 Principles of Biology I (fall) (recommended for transfer to Northeastern University Mechanical Engineering program)</p> <p>Career Pathway Electives: CS 120 Programming I (fall), CS 200 Programming II (spring), or Computer Science (CS) courses higher than CS 110 (for transfer to UMass Lowell for Electrical Engineering/Computer Science double major program)</p> <p>Humanities Electives: Art, Communication, Critical Thinking, English (EN 103 or higher), Film, Foreign Language, Humanities, Literature, Music, Oral Communication, Philosophy, Photography, Sign Language, Theater Arts</p> <p>Social Science Electives: Anthropology, Economics, Geography, Government, History, Law, Psychology, Sociology</p> <p>PROGRAM FOOTNOTES Students are advised to check transfer requirements at four year institutions. Some institutions require 2 (two) Chemistry courses for specific engineering programs. CH 110 and CH 120 sequence is recommended in such cases.</p> <p>This program qualifies as an Alternative Transfer Agreement (Mass Transfer) with select public institutions in Massachusetts. For more information, visit www.mass.edu/masstransfer.</p>		
COURSE	COURSE TITLE	CREDITS
<i>First Year</i>	<i>Semester 1</i>	
CT 100	Critical Thinking	3
PY 103	Engineering Physics I w/ Lab	4
EN 101	Freshman English I	3
MA 200	Calculus I	4
MN 130	Engineering Design with CAD I	4
	credits:	18
<i>First Year</i>	<i>Semester 2</i>	
MN 125	Engineering Computation with Application Software	4
PY 104	Engineering Physics II w/ Lab	4
EN 102	Freshman English II	3
	Humanities Elective	3
MA 201	Calculus II	4
	credits:	18
<i>Second Year</i>	<i>Semester 1</i>	
CH 110	Principles of Chemistry w/ Lab	4
	or	
CH 140	Chemistry for Engineers w/ Lab	4
MA 202	Calculus III	4
CS 110	Introduction to Computer Science	4
MN 203	Engineering Mechanics: Statics	3
	Social Science Elective	3
	credits:	18
<i>Second Year</i>	<i>Semester 2</i>	
MN 204	Engineering Mechanics: Dynamics	3
MA 211	Differential Equations	4
MN 210	Strength of Materials I	4
	Career Pathway Elective	3/4
	Humanities Elective	3
	or	
	Social Science Elective	3
	credits:	17/18
	Total Credits:	71/72
<p>Competency in mathematics is a MassBay graduation requirement. Prior to graduation, students must demonstrate competency at 100-level math. This may be accomplished by an appropriate placement test score or completion of any 100-level mathematics course or higher, except mathematics courses with a MAC prefix.</p>		

AY '19-'20

Table 6: Transfer credits Between MassBay and Wentworth for Mechanical Engineering

First-Year Courses:

WIT Courses	Credits	MassBay Courses	Credits	Comments
MATH1750 Engineering Calculus I	4	MA200 Calculus I	4	
PHYS1250 Engineering Physics I	4	PY103 Engineering Physics I w/Lab	4	
ENGR1000 Introduction to Engineering	3	CS110 Introduction to Computer Science	3	
ENGR1600 Fundamentals of CAD/CAM	1	Students need to take a CAM course at WIT		
ENGR1800 Programming with MATLAB	1	MN125 – Engineering Computation with Application Software	4	
MATH1850 Engineering Calculus II	4	MA201 Calculus II	4	
PHYSICS1750 Engineering Physics II	4	PY104 Engineering Physics II w/Lab	4	
ENGR1500 Intro to Engineering Design	3	Students need to take ENGR3500 Engr. Jr. Design or ENGR 1500 Intro. to Engr. Design		
ENGL1100 English I	4	EN101 Freshman English I	3	WIT requires 20 credits: 8 in English and 12 in Humanities and Social Sciences (HSS).
ENGL2200 English II	4	EN102 Freshman English II	3	
Humanities or Social Sciences Elective	4	Humanities Elective	3	These MBCC courses total 18 credits. Students are short 2 credits in HSS to com
Humanities or Social Sciences Elective	4	Social Sciences Elective	3	
Humanities or Social Sciences Elective	4	Humanities or Social Sciences Elective	3	
Humanities or Social Sciences Elective	4	CT100 Critical Thinking	3	

Second Year Courses:

WIT Courses	Credits	MassBay Courses	Credits	Comments
MATH2025 Multivariable Calculus	4	MA202 Calculus III	4	
MECH2300 Engineering Graphics	3	MN130 Engineering Design with CAD I	4	
ELEC2799 Circuit Theory and Applications	3	Needs to be taken at Wentworth		
MECH 2000 Engineering Statics	4	MN203 Engineering Mechanics: Statics	4	
MECH2500 Mechanics of Materials	4	MN210 Strength of Materials I	4	
MATH2500 Differential Equations	4	MA211 Differential Equations	4	
MECH2250 Engr. Thermodynamics I	4	MN220 as a Career Pathway Elective	4	
CHEM1100 Engineering Chemistry	4	CH110 or CH140	4	

Bachelor of Science in Mechanical Engineering (BSME)

Table 7: Program Plan to Complete Bachelor of Science in Mechanical Engineering at Wentworth

Year	Fall 2021				Spring 2022				Summer 2022				
	Course	R	L	C	Course	R	L	C	Course	R	L	C	
Junior	MECH3000	4	0	4	Co-op Work Term I COOP3500	MECH3600	3	2	4	Materials Science	3	2	4
	MECH3100	3	2	4		MATH2100	4	0	4	Probability and Statistics for Engineers	4	0	4
	Elective	3	0	3		ENGR3500	1	6	4	Engineering Junior Design	1	6	4
	ENGR1600	0	2	1		MECH 3900	4	0	4	Engineering Heat Transfer	4	0	4
	MECH2750	3	2	4									
	Total: 16				Total: 16				Total: 16				
Year	Fall 2022				Spring 2023				Summer 2023				
Senior	Co-op Work Term II COOP4500				Elective	3	0	3	General Elective	3	0	3	
					MECH4200	2	4	4	HSS	2	0	2	
					ELEC2799	2	2	3	Technical Elective	3	0	3	
					MECH5000	1	4	3	MECH 5500	1	6	4	
					MECH4000	3	0	3	Mechanical Capstone	1	6	4	
	Total: 16				Total: 16				Total: 12				

Articulation Agreement

Between

Wentworth Institute of Technology

550 Huntington Ave, Boston, MA 02115

and

Massachusetts Bay Community College

50 Oakland Street, Wellesley Hills, MA 02481

Signatures:



David Podell, Ph.D., President

Massachusetts Bay Community College



Mark Thompson, Ph.D., President

Wentworth Institute of Technology



Lynn Hunter, Ed.D., Vice President

Academic Affairs



Provost Lapp, Ph.D., Sr. Vice President

Academic Affairs and Provost



Chitra Javdekar, Ph.D

Dean of STEM



José Sánchez, Dean

School of Engineering

October 20, 2021

Date

October 15, 2021

Date