

Holyoke Community College Associate Degree Courses Mapped to WPI Course Equivalencies

*This document reflects an **UNOFFICIAL** evaluation of undergraduate transfer credits by Worcester Polytechnic Institute as of November 31, 2024, and it may differ from an official evaluation, which would be completed upon receipt of an application for admission and all official transcripts.*

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Note that each HCC associate degree provides ideas for what major you could pursue at WPI on the following pages.

Please review the WPI Undergraduate Catalog for more information <https://wpi.cleancatalog.net/>

WPI degree tracking sheets can be found here: <https://www.wpi.edu/student-experience/resources/academic-advising/program-tracking-sheets>

Information on the WPI Terms and Credit Unit system can be found here: <https://wpi.cleancatalog.net/wpi-degree-requirements>

Biotechnology at HCC to 'Biology & Biotechnology' at WPI

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 30 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
MTH 104(D): College Algebra - OR -	4	No WPI Equivalency	---
MTH 108(D): Precalculus - OR -	4	No WPI Equivalency	---
MTH 113(D): Calculus I	4	MA 1021: Calculus I	1/3
BIO 107(E): General Biology I: Introduction to Cell Functions	4	BB 1035: Biotechnology	1/3
BIO 108(E): General Biology II: Diversity of Life on Earth	4	BB 1XXX: Biology Elective	1/3
<i>Program Requirements: 24 Credits</i>			
BIO 106(E): Introduction to Biotechnology	4	BB 1101: Foundations Of Cellular And Molecular Biotechnology	1/3
BIO 229(E): Microbiology	4	BB 2002: Microbiology	1/3
CHM 121(E): Chemistry for Science and Engineering Students I	4	CH 1010: Chemical Properties, Bonding and Forces	1/3
CHM 124(E): Chemistry for Science and Engineering Students II	4	CH 1030: Kinetics, Equilibrium And Thermodynamics	1/3
MTH 142(D): Statistics	3	MA 2611: Applied Statistics I	1/3
<i>Program Electives: 8 Credits</i>			
<i>select 2 of the following:</i>			
BIO 243(E): Genetics	4	BB 2920: Genetics	1/3
CHM 221(E): Organic Chemistry I	4	CH 2310: Organic Chemistry I	1/3
CHM 222(E): Organic Chemistry II	4	CH 2320: Organic Chemistry II	1/3
MTH 108(D): Precalculus	4	No WPI Equivalency	---
MTH 113(D): Calculus I	4	MA 1021: Calculus I	1/3
PHS 111(E): Physics for Engineers and Science Majors I	4	PH 1110: General Physics - Mechanics	1/3
PHS 112(E): Physics for Engineers and Science Majors II	4	PH 1120: General Physics—Electricity And Magnetism	1/3

Biology at HCC
to 'Biology & Biotechnology' or 'Bioinformatics and Computation Biology' at WPI

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 26 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Humanities Elective (C)	3	See humanities Elective Table	1/3
Humanities Elective (C)	3	See humanities Elective Table	1/3
BIO 107(E): General Biology I: Introduction to Cell Functions	4	BB 1035: Biotechnology	1/3
BIO 108(E): General Biology II: Diversity of Life on Earth	4	BB 1XXX: Biology Elective	1/3
<i>Program Requirements: 15 Credits</i>			
CHM 121(E): Chemistry for Science and Engineering Students I	4	CH 1010: Chemical Properties, Bonding and Forces	1/3
CHM 124(E): Chemistry for Science and Engineering Students II	4	CH 1030: Kinetics, Equilibrium And Thermodynamics	1/3
MTH 142(D): Statistics	3	MA 2611: Applied Statistics I	1/3
MTH 104(D): College Algebra	4	No WPI Equivalency	---
MTH 108(D): Precalculus	4	No WPI Equivalency	---
MTH 113(D): Calculus I	4	MA 1021: Calculus I	1/3
<i>Program Electives: 20 Credits</i>			
<i>Select 2 of the following:</i>			
BIO 229(E): Microbiology	4	BB 2002: Microbiology	1/3
BIO 230(E): Ecology	4	BB 1102: Foundations Of Ecology And Environmental Biology	1/3
BIO 234(E): Evolution	4	BB 1XXX: Biology Elective	1/3
BIO 243(E): Genetics	4	BB 2920: Genetics	1/3
<i>Select 12 credits from the following:</i>			
BIO 106(E): Introduction to Biotechnology	4	BB 1101: Foundations Of Cellular And Molecular Biotechnology	1/3
BIO 110(E): General Botany	4	BB 2030: Plant Diversity	1/3
BIO 111(E): Human Biology	4	BB 1004: Human Biology	1/3
BIO 120(E): General Zoology	4	BB 1XXX: Biology Elective	1/3
BIO 217(E): Human Anatomy and Physiology I	4	BB: Human Anatomy & Physiology: Movement & Communication	1/3
BIO 218(E): Human Anatomy and Physiology II	4	BB 3102: Human Anatomy & Physiology	1/3
BIO 229(E) - Microbiology	4	BB 2002: Microbiology	1/3
BIO 230(E) - Ecology	4	BB 1102: Foundations Of Ecology And Environmental Biology	1/3
BIO 234(E) - Evolution	4	BB 1XXX: Biology Elective	1/3

CHM 221(E): Organic Chemistry I	4	CH 2310: Organic Chemistry I	1/3
CHM 222(E): Organic Chemistry II	4	CH 2320: Organic Chemistry II	1/3
MTH 113(D): Calculus I	4	MA 1021: Calculus I	1/3
MTH 114(D): Calculus II	4	MA 1022: Calculus II	1/3
PHS 111(E): Physics for Engineers and Science Majors I	4	PH 1110: General Physics - Mechanics	1/3
PHS 112(E): Physics for Engineers and Science Majors II	4	PH 1120: General Physics—Electricity And Magnetism	1/3

Chemistry at HCC to 'Chemistry' or 'Biochemistry' at WPI

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 36 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction to Rhetoric	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
MTH 113(D): Calculus I	4	MA 1021: Calculus I	1/3
CHM 121(E): Chemistry for Science and Engineering Students I	4	CH 1010: Chemical Properties, Bonding and Forces	1/3
CHM 124(E): Chemistry for Science and Engineering Students II	4	CH 1030: Kinetics, Equilibrium and Thermodynamics	1/3
<i>Program Requirements: 8 Credits</i>			
CHM 221(E): Organic Chemistry I	4	CH 2310: Organic Chemistry I	1/3
CHM 222(E): Organic Chemistry II	4	CH 2320: Organic Chemistry II	1/3
<i>Suggested Electives: 16 Credits; Sufficient to complete 60 credit graduation requirements (below or any course with a WPI equivalency)</i>			
ENG 218(C): Advanced Academic Writing	3	WR 4111: Research Methods In Writing	1/3
FRH 101(C): Elementary French I (Not Recommended)	3	No WPI Equivalency	---
FRH 102(C): Elementary French II (Not Recommended)	3	No WPI Equivalency	---
MTH 114(D): Calculus II	4	MA 1022: Calculus II	1/3
MTH 213(D): Calculus III	4	MA 1024: Calculus IV	1/3
PHS 101(E): General Physics I (Not Recommended)	4	PH 1XXX: Physics 1000 Level Elective	1/3

##MTH 113, MTH 114, and MTH 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

Mathematics at HCC
to 'Mathematics' or 'Actuarial Mathematics' at WPI

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 26 Credits</i>			
ENG 101(A): Composition I Credit(s): 3	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II Credit(s): 3	3	WR 1020: Introduction To Rhetoric	1/3
Humanities Elective (C) Credit(s): 3	3	See Humanities Elective Table	1/3
Humanities Elective (C) Credit(s): 3	3	See Humanities Elective Table	1/3
Social Science Elective (B) Credit(s): 3	3	See Social Science Elective Table	1/3
Social Science Elective (B) Credit(s): 3	3	See Social Science Elective Table	1/3
Laboratory Science Elective (E) Credit(s): 4	4	See Laboratory Science Elective Table	1/3
Laboratory Science Elective (E) Credit(s): 4	4	See Laboratory Science Elective Table	1/3
<i>Program Requirements: 20 Credits</i>			
MTH 113(D): Calculus I Credit(s): 4	4	##MA 1021: Calculus I	1/3
MTH 114(D): Calculus II Credit(s): 4	4	##MA 1022: Calculus II	1/3
MTH 213(D): Calculus III Credit(s): 4	4	##MA 1024: Calculus IV	1/3
<i>select 2 of the following:</i>			
MTH 205(D): Linear Algebra Credit(s): 4	4	MA 2071: Matrices and Linear Algebra I	1/3
MTH 214(D): Differential Equations Credit(s): 4	4	MA 2051: Ordinary Differential Equations	1/3
MTH 230(D): Discrete Mathematics Credit(s): 4	4	MA 2201: Discrete Mathematics	1/3
<i>Suggested Electives: 14-16 Credits</i>			
CSI 106: Programming Fundamentals I Credit(s): 4	4	CS 1XXX: Computer Science 1000 Level Elective	1/3
CSI 218: Programming Fundamentals II Credit(s): 4	4	CS 2119: Application Building with Object-Oriented Concepts	1/3
CSI 254: Java Programming I Credit(s): 4	4	CS 2XXX: Computer Science 2000 Level Elective	1/3
CSI 258: Data Structures Credit(s): 4	4	CS 2XXX: Computer Science 2000 Level Elective	1/3
EGR 118: Introduction to Engineering with JAVA Credit(s): 4	4	ES 1XXX: Engineering Science 1000 Level Elective	1/3
MTH 108(D): Precalculus Credit(s): 4	4	No WPI Equivalency	---
MTH 205(D): Linear Algebra Credit(s): 4	4	MA 2071: Matrices and Linear Algebra I	1/3
MTH 214(D): Differential Equations Credit(s): 4	4	MA 1022: Calculus II	1/3
MTH 230(D): Discrete Mathematics Credit(s): 4	4	MA 2201: Discrete Mathematics	1/3
Additional Engineering	3 or 4	See Engineering Elective Table	1/3

Humanities Elective (C)	3	See Humanities Electives Table	1/3
Laboratory Science Elective (E)	4	See Laboratory Science Electives Table	1/3
Social Science Elective (B)	3	See Social Science Electives Table	1/3

##MTH 113, MTH 114, and MTH 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

**Environmental Science at HCC
to 'Environmental and Sustainability Studies' at WPI**

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 20 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
POL 120(B): State and Local Government	3	GOV 1XXX: Government 1000 Elective	1/3
SOC 110(B): Introduction to Sociology	3	SOC 1202: Introduction To Sociology And Cultural Diversity	1/3
CHM 121(E): Chemistry for Science and Engineering Students I	4	CH 1010: Chemical Properties, Bonding and Forces	1/3
CHM 124(E): Chemistry for Science and Engineering Students II	4	CH 1030: Kinetics, Equilibrium And Thermodynamics	1/3
<i>Program Requirements: 39-41 Credits</i>			
ENV 115: Environmental Seminar	1	No WPI Equivalency	---
ENV 120(E): Introduction to Environmental Science	4	ENV 1100: Introduction To Environmental Studies	1/3
ENV 125: Mapping with Geographic Information Systems	3	ENV 1500: Introduction To Geographical Information Systems	1/3
ENV 137(E): Environmental Geology	4	GE 2341: Geology	1/3
ENV 138(E): Soil and the Environment	4	No WPI Equivalency	---
ENV 140(E): People and the Environment	4	SS 1XXX: Social Science 1000 Level Elective	1/3
ENV 230: Principles of Environmental Site Assessment	3	EL 1XXX: General Elective 1000 Level	1/3
ENV 253(E): Aquatic Ecology and Pollution	4	No WPI Equivalency	---
HIS 111(C): History of the United States I	3	HI 2313: American History, 1789-1877	1/3
HIS 225(C): American Environmental History	3	HI 2400: Topics In Environmental History	1/3
Mathematics Elective (D)	3 - 4	See Mathematics Elective Table	1/3
Mathematics Elective (D)	3 - 4	See Mathematics Elective Table	1/3
<i>Program Electives: 6-8 Credits</i>			
Program Elective (BIO, CHM, EGR, ENV, ESC, MTH, PHS, SEM, SUS)	3 - 4	See Laboratory Science, Mathematics, or Engineering Elective Tables	1/3
Program Elective (BIO, CHM, EGR, ENV, ESC, MTH, PHS, SEM, SUS)	3 - 4	See Laboratory Science, Mathematics, or Engineering Elective Tables	1/3

Computer Science at HCC

to 'Computer Science' or 'Bioinformatics and Computational Biology' or 'Data Science' at WPI

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 26 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
PHS 111(E): Physics for Engineers and Science Majors I	4	PH 1110: General Physics - Mechanics	1/3
PHS 112(E): Physics for Engineers and Science Majors II	4	PH 1120: General Physics—Electricity And Magnetism	1/3
<i>Program Requirements: 31 Credits</i>			
CSI 106: Programming Fundamentals I	4	CS 1XXX: Computer Science 1000 Level Elective	1/3
CSI 111: Computer Concepts with Applications	4	EL 1XXX: General Elective 1000 Level	1/3
CSI 218: Programming Fundamentals II	4	CS 2119: Application Building with Object-Oriented Concepts	1/3
CSI 242: Applied Database Management	3	CS 3431: Database Systems I	1/3
CSI 254: Java Programming I	4	CS 2XXX: Computer Science 2000 Level Elective	1/3
CSI 258: Data Structures	4	CS 2XXX: Computer Science 2000 Level Elective	1/3
MTH 113(D): Calculus I	4	MA 1021: Calculus I	1/3
MTH 114(D): Calculus II	4	MA 1022: Calculus II	1/3
<i>Program Electives: 6-8 Credits</i>			
<i>Select 2 of the following:</i>			
CSI 105: Principles of Information Security and Assurance	3	CS 1XXX: Computer Science 1000 Level Elective	1/3
CSI 121: Foundations of Linux	4	EL 1XXX: General Elective 1000 Level	1/3
CSI 214: Systems Analysis and Design	3	CS 2XXX: Computer Science 2000 Level Elective	1/3
CSI 251: Network Development	3	CS 2XXX: Computer Science 2000 Level Elective	1/3
CSI 264: Disaster Recovery	3	CS 2XXX: Computer Science 2000 Level Elective	1/3
MTH 108(D): Precalculus	4	No WPI Equivalency	---
MTH 190(D): Introduction to Data Science	3	DS 1010: Data Science I: Introduction to Data Science	1/3
MTH 205(D): Linear Algebra	4	MA 2071: Matrices and Linear Algebra I	1/3
MTH 213(D): Calculus III	4	MA 1024: Calculus IV	1/3
MTH 230(D): Discrete Mathematics	4	MA 2201: Discrete Mathematics	1/3

##MTH 113, MTH 114, and MTH 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

Data Science at HCC

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 26 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Laboratory Science Elective (E)	4	See Laboratory Science Elective Table	1/3
Laboratory Science Elective (E)	4	See Laboratory Science Elective Table	1/3
<i>Program Requirements: 29 Credits</i>			
CSI 106: Programming Fundamentals I	4	CS 1XXX: Computer Science 1000 Level Elective	1/3
CSI 111: Computer Concepts with Applications	4	EL 1XXX: General Elective 1000 Level	1/3
CSI 242: Applied Database Management	3	CS 3431: Database Systems I	1/3
MTH 113(D): Calculus I	4	MA 1021: Calculus I	1/3
MTH 114(D): Calculus II	4	MA 1022: Calculus II	1/3
MTH 190(D): Introduction to Data Science	3	DS 1010: Data Science I: Introduction to Data Science	1/3
MTH 192(D): Statistical Computing	3	Not in TES	
MTH 205(D): Linear Algebra	4	MA 2071: Matrices and Linear Algebra I	1/3
<i>Program Electives: 8 Credits</i>			
CSI 218: Programming Fundamentals II	4	CS 2119: Application Building with Object-Oriented Concepts	1/3
CSI 258: Data Structures	4	CS 2XXX: Computer Science 2000 Level Elective	1/3
MTH 108(D): Precalculus	4	No WPI Equivalency	---
MTH 230(D): Discrete Mathematics	4	MA 2201: Discrete Mathematics	1/3

Engineering at HCC

to 'Aerospace', 'Architectural', 'Chemical', 'Civil', 'Electrical & Computer', 'Environmental', 'Mechanical', 'Robotics',
'Industrial', or 'Management' Engineering at WPI

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Electives Requirements: 20 credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction to Rhetoric	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
PHS 111(E): Physics for Engineers and Science Majors I	4	PH 1110: General Physics - Mechanics	1/3
PHS 112(E): Physics for Engineers and Science Majors II	4	PH 1120: General Physics—Electricity And Magnetism	1/3
<i>Program Requirements: 26 - 27 credits</i>			
MTH 113(D): Calculus I	4	##MA 1021: Calculus I	1/3
MTH 114(D): Calculus II	4	##MA 1022: Calculus II	1/3
MTH 213(D): Calculus III	4	##MA 1024: Calculus IV	1/3
CHM 121(E): Chemistry for Science and Engineering Students I	4	CH 1010: Chemical Properties, Bonding and Forces	1/3
CHM 124(E): Chemistry for Science and Engineering Students II -OR - Any 4-credit BIO course	4 4	CH 1030: Kinetics, Equilibrium And Thermodynamics - OR - See Biology Courses Elective Table	1/3
EGR 109: Introduction to Electronic Digital Circuits with Verilog - OR - EGR 117: Introduction to Engineering with Computer Applications	4 3	ECE 2029: Introduction To Digital Circuit Design - OR - EL 1XXX: General Elective 1000 Level	1/3
EGR 221: Mechanics I - Statics	3	ES 2501: Introduction to Static Systems	1/3
<i>Mechanical, Civil, Industrial Engineering: 13 - 14 credits</i>			
MTH 214(D): Differential Equations	4	MA 2051: Ordinary Differential Equations	1/3
<i>Select 3 of the following:</i>			
EGR 203: Introduction to Materials Science	3	ES 2001: Introduction To Materials Science	1/3
EGR 222: Mechanics II - Strength of Materials	3	ES 2502: Stress Analysis	1/3
EGR 223: System Analysis (Circuit Analysis I)	4	ECE 2311: Continuous-Time Signal And System Analysis	1/3
EGR 250: Thermodynamics	3	ES 3001: Introduction To Thermodynamics	1/3
<i>Electrical Engineering or Computer Systems: 23 - 24 credits</i>			
EGR 203: Introduction to Materials Science	3	ES 2001: Introduction To Materials Science	1/3
EGR 222: Mechanics II - Strength of Materials	3	ES 2502: Stress Analysis	1/3
EGR 223: System Analysis (Circuit Analysis I)	4	ECE 2311: Continuous-Time Signal And System Analysis	1/3
EGR 250: Thermodynamics	3	ES 3001: Introduction To Thermodynamics	1/3
EGR 223: System Analysis (Circuit Analysis I)	4	ECE 2311: Continuous-Time Signal And System Analysis	1/3
<i>Select 1 of the following:</i>			

EGR 203: Introduction to Materials Science	3	ES 2001: Introduction To Materials Science	1/3
EGR 222: Mechanics II - Strength of Materials	3	ES 2502: Stress Analysis	1/3
EGR 224: System Analysis (Circuit Analysis II)	4	ECE 2311: Continuous-Time Signal And System Analysis	1/3
<i>General Engineering: 12 credits</i>			
Chemistry Course(s)	4 - 12	See CHM Courses in Laboratory Science Elective Table	
Engineering Course(s)	4 - 12	See Engineering Courses Elective Table	
Mathematics Course(s)	3 - 12	See Mathematics Courses Elective Table	
Biology: Any 100 or 200 level Biology Course(s)	4 - 12	See BIO Courses in Laboratory Science Elective Table	
<i>General Electives: 0 - 2 Credits; Sufficient to complete 60 credit graduation requirement</i>			

##MTH 113, MTH 114, and MTH 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

**Physics – Mass Transfer at HCC
to ‘Physics’ or ‘Applied Physics’ at WPI**

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 36 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
MTH 113(D): Calculus I	4	##MA 1021: Calculus I	1/3
PHS 111(E): Physics for Engineers and Science Majors I	4	PH 1110: General Physics - Mechanics	1/3
PHS 112(E): Physics for Engineers and Science Majors II	4	PH 1120: General Physics—Electricity And Magnetism	1/3
<i>Program Requirements: 8 Credits</i>			
MTH 114(D): Calculus II	4	##MA 1022: Calculus II	1/3
MTH 213(D): Calculus III	4	##MA 1024: Calculus IV	1/3
<i>Suggested Electives: 16 Credits; Sufficient to complete 60 credit graduation requirement</i>			
AST 110(E): Introduction to Astronomy	4	WR 4111: Research Methods In Writing	1/3
MTH 205(D) - Linear Algebra Credit(s): 4	4	No WPI Equivalency	---
MTH 214(D) - Differential Equations Credit(s): 4	4	No WPI Equivalency	---
MTH 230(D) - Discrete Mathematics Credit(s): 4	4	MA 2022: Discrete Mathematics	1/3
Any 4-Credit BIO Course Credit(s): 4	4	See BIO Courses in Lab Science Electives Table	1/3
Any CHM Course	4	See CHM Courses in Lab Science Electives Table	1/3
Any CSI Course	3 - 4	See CSI Electives Table	1/3
Any EGR Course	3 - 4	See Engineering Electives Table	1/3
Any 4-Credit Physical Science Course	4	See PHS Courses in Lab Science Electives Table	1/3

##MTH 113, MTH 114, and MTH 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

**Physics – General Transfer at HCC
to ‘Physics’ or ‘Applied Physics’ at WPI**

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 20 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
PHS 111(E): Physics for Engineers and Science Majors I	4	PH 1110: General Physics - Mechanics	1/3
PHS 112(E): Physics for Engineers and Science Majors II	4	PH 1120: General Physics—Electricity And Magnetism	1/3
<i>Program Requirements: 12 Credits</i>			
MTH 113(D): Calculus I	4	##MA 1021: Calculus I	1/3
MTH 114(D): Calculus II	4	##MA 1022: Calculus II	1/3
MTH 213(D): Calculus III	4	##MA 1024: Calculus IV	1/3
<i>Suggested Electives: 28 Credits; Sufficient to complete 60 credit graduation requirement</i>			
AST 110(E): Introduction to Astronomy	4	EL 1XXX: General Elective 1000 Level	1/3
MTH 205(D): Linear Algebra	4	MA 2071: Matrices and Linear Algebra I	1/3
MTH 214(D): Differential Equations	4	MA 2051: Ordinary Differential Equations	1/3
MTH 230(D): Discrete Mathematics	4	MA 2201: Discrete Mathematics	1/3
Any BIO Course	4	See BIO courses in Laboratory Science Electives Table	1/3
Any CHM Course	4	See CHM courses in Laboratory Science Electives Table	1/3
Any CSI Course	3 - 4	See CSI Elective Table	1/3
Any EGR Course	3 - 4	See Engineering Electives Table	1/3
Social Science Elective (B)	3	See Social Science Electives Table	1/3
Humanities Elective (C)	3	See Humanities Electives Table	1/3
Humanities Elective (C)	3	See Humanities Electives Table	1/3
Humanities Elective (C)	3	See Humanities Electives Table	1/3

##MTH 113, MTH 114, and MTH 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

Engineering Science at HCC

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 20 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
PHS 111(E): Physics for Engineers and Science Majors I	4	PH 1110: General Physics - Mechanics	1/3
PHS 112(E): Physics for Engineers and Science Majors II	4	PH 1120: General Physics—Electricity And Magnetism	1/3
<i>Program Requirements: 16-17 Credits</i>			
MTH 113(D): Calculus I	4	MA 1021: Calculus I	1/3
MTH 114(D): Calculus II	4	MA 1022: Calculus II	1/3
<i>Select 2 of the following:</i>			
EGR 109: Introduction to Electronic Digital Circuits with Verilog	4	ECE 2029: Introduction To Digital Circuit Design	1/3
EGR 110(E): Introduction to Robotics I	4	RBE 1XXX: RBE 1000 Level Elective	1/3
EGR 117: Introduction to Engineering with Computer Applications	4	EL 1XXX: General Elective 1000 Level	1/3
EGR 118: Introduction to Engineering with JAVA	4	ES 1XXX: Engineering Science 1000 Level Elective	1/3
<i>Program Electives: 21-28 Credits</i>			
<i>Select 7 of the following:</i>			
AST 110(E): Introduction to Astronomy	4	EL 1XXX: General Elective 1000 Level	1/3
SEM 130(E): Topics in Science	4	EL 1XXX: General Elective 1000 Level	1/3
Chemistry Course(s)	4 - 12	See CHM Courses in Laboratory Science Elective Table	
Engineering Course(s)	4 - 12	See Engineering Courses Elective Table	
Mathematics Course(s)	3 - 12	See Mathematics Courses Elective Table	
Biology Course(s)	4 - 12	See BIO Courses in Laboratory Science Elective Table	
Environmental Science Course(s) (Not Recommended)	4 - 12	See ENV Courses in Laboratory Science Elective Table	
Sustainability Course(s) <i>Credit(s)</i>	4 - 12	See Sustainability Course Elective Table	
<i>General Electives: 0-4 Credits; Sufficient to complete 60 credit graduation requirement</i>			

Business Administration at HCC

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
<i>General Education Requirements: 32 Credits</i>			
ENG 101(A): Composition I	3	EN 1251: Introduction to Literature	1/3
ENG 102(A): Composition II	3	WR 1020: Introduction To Rhetoric	1/3
ECN 101(B): Introduction to Macroeconomics - OR -	3	ECON 1120: Introductory Macroeconomics	1/3
ECN 102(B): Introduction to Microeconomics - OR -	3	ECON 1110: Introductory Microeconomics	1/3
ECN 104(B): Introduction to Macro AND Micro Economics	6	ECON 1120 and ECON 1110	1/3+1/3
Social Science Elective (B)	3	See Social Science Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Humanities Elective (C)	3	See Humanities Elective Table	1/3
Laboratory Science Elective (E)	4	See Laboratory Science Elective Table	1/3
Laboratory Science Elective (E)	4	See Laboratory Science Elective Table	1/3
<i>Program Requirements: 30-31 Credits</i>			
ACC 111: Principles of Accounting I	3	ACC 1XXX: Accounting 1000 Level Elective	1/3
ACC 112: Principles of Accounting II	3	ACC 1XXX: Accounting 1000 Level Elective	1/3
ACC 205: Managerial Accounting	3	ACC 2060: Financial Statements For Decision Making	1/3
BUS 101: Introduction to Business	3	BUS 1XXX: Business 1000 Level Elective	1/3
BUS 115: Computer Applications - OR -	3	EL 1XXX: General Elective 1000 Level	1/3
CSI 111: Computer Concepts with Applications	4	EL 1XXX: General Elective 1000 Level	1/3
LAW 211: Business Law	3	BUS 2020: The Legal Environment Of Business Decisions	1/3
MGT 230: Principles of Management	3	BUS 1XXX: Business 1000 Level Elective	1/3
MKT 240: Principles of Marketing	3	MKT 2XXX: Marketing 2000 Level Elective	1/3
MTH 142(D): Statistics	3	MA 2611: Applied Statistics I	1/3
MTH 162(D): Applied Calculus	3	MA 1021: Calculus I	1/3

HCC Social Science Electives with WPI Course Equivalencies

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
ECN 101: Introduction to Macroeconomics	3	ECON 1120: Introductory Macroeconomics	1/3
ECN 102: Introduction to Microeconomics	3	ECON 1110: Introductory Microeconomics	1/3
ECN 104: Introduction to Macro AND Micro Economics	6	ECON 1110: Introductory Microeconomics & ECON 1120: Introductory Macroeconomics	1/3 & 1/3
PSY 110: Introduction to Psychology	3	PSY 1400: Introduction to Psychological Science	1/3
SOC 110: Introduction to Sociology	3	SOC 1202: Introduction To Sociology And Cultural Diversity	1/3

HCC Humanities Electives with WPI Course Equivalencies

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
ART 121: Basic Drawing	3	AR 1100: Essentials Of Art	1/3
ART 122: Drawing Composition	3	HU 1XXX: Humanities And Arts Elective	1/3
ART 222: Figure Drawing I	3	AR 2202: Figure Drawing	1/3
ENG 117: Introduction to Creative Writing	3	EN 1219: Introduction To Creative Writing	1/3
ENG 218: Advanced Academic Writing	3	WR 4111: Research Methods In Writing	1/3
ENG 231: Creative Nonfiction	3	EN 2219: Creative Writing	1/3
FRH 101: Elementary French I	3	EL 1XXX: General Elective 1000 Level	1/3
FRH 102: Elementary French II	3	EL 1XXX: General Elective 1000 Level	1/3
HIS 101: History of Western Civilization I	3	HI 1XXX: History 1000 Level Elective	1/3
HIS 102: History of Western Civilization II	3	HI 1322: Introduction To European History	1/3
HIS 105: History of World War II	3	HU 2XXX: Humanities 2000 Level Elective	1/3
HIS 107: History of Puerto Rico and the Caribbean	3	HI 2345: Welcome To Paradise	1/3
HIS 111: History of the United States I	3	HI 2313: American History, 1789-1877	1/3
HIS 112: History of the United States II	3	HI 2314: American History, 1877-1920	1/3
HIS 130: U.S. Women's History	3	HI 2900: Topics in Gender and History	1/3
HIS 225: American Environmental History	3	HI 2400: Topics In Environmental History	1/3
MUS 100: Music Fundamentals	3	MU 1511: Introduction To Music	1/3
MUS 105: Music Theory I	3	MU 1100: Foundations Of Music Theory And Aural Skills	1/3
MUS 106: Introduction to World Music	3	MU 1511: Introduction to Music	1/3
MUS 107: Music Theory II	3	MU 2611: Fundamentals Of Music II	1/3
MUS 110: Introduction to Classical Music	3	MU 2002: History Of Western Art Music After 1750	1/3
MUS 126: Rock and Pop Music in America	3	MU 2722: History of American Popular Music	1/3
MUS 140: Introduction to Jazz	3	MU 2719: Jazz History	1/3
PHI 101: Introduction to Philosophy	3	PY 1731: Introduction To Philosophy And Religion	1/3
PHI 120: Ethics	3	PY 2731: Ethics	1/3
SPA 101: Elementary Spanish I	3	SP 1523: Elementary Spanish I	1/3
SPA 102: Elementary Spanish II	3	SP 1524: Elementary Spanish II	1/3
SPA 209: Introduction to Latin American Cultures and Civilizations	3	HI 2930: Topics In Latin American History	1/3
SPA 214: The Spanish Short Story	3	SP 2521: Intermediate Spanish I	1/3
THE 100: Introduction to Theater	3	TH 1221: Introduction To Theatre On Page And Stage	1/3

HCC Lab Science Electives with WPI Course Equivalencies

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
AST 110: Introduction to Astronomy	4	EL 1XXX: General Elective 1000 Level	1/3
BIO 106: Introduction to Biotechnology	4	BB 1101: Foundations Of Cellular And Molecular Biotechnology	1/3
BIO 107: General Biology I: Introduction to Cell Functions	4	BB 1035: Biotechnology	1/3
BIO 108: General Biology II: Diversity of Life on Earth	4	BB 1XXX: Biology Elective	1/3
BIO 110: General Botany	4	BB 2030: Plant Diversity	1/3
BIO 111: Human Biology	4	BB 1004: Human Biology	1/3
BIO 120: General Zoology	4	BB 1XXX: Biology Elective	1/3
BIO 217: Human Anatomy and Physiology I	4	BB 3101: Human Anatomy & Physiology: Movement & Communication	1/3
BIO 218: Human Anatomy and Physiology II	4	BB 3102: Human Anatomy & Physiology	1/3
BIO 229: Microbiology	4	BB 2002: Microbiology	1/3
BIO 230: Ecology	4	BB 1102: Foundations Of Ecology And Environmental Biology	1/3
BIO 234: Evolution	4	BB 1XXX: Biology Elective	1/3
BIO 243: Genetics	4	BB 2920: Genetics	1/3
CHM 101: General Chemistry I	4	CH 1010: Chemical Properties, Bonding and Forces	1/3
CHM 121: Chemistry for Science and Engineering Students I	4	CH 1010: Chemical Properties, Bonding and Forces	1/3
CHM 124: Chemistry for Science and Engineering Students II	4	CH 1030: Kinetics, Equilibrium And Thermodynamics	1/3
CHM 221: Organic Chemistry I	4	CH 2310: Organic Chemistry I	1/3
CHM 222: Organic Chemistry II	4	CH 2320: Organic Chemistry II	1/3
EGR 110: Introduction to Robotics I	4	RBE 1XXX: RBE 1000 Level Elective	1/3
EGR 111: Introduction to Robotics II	4	RBE 1XXX: RBE 1000 Level Elective	1/3
ENV 120: Introduction to Environmental Science	4	ENV 1100: Introduction To Environmental Studies	1/3
ENV 137: Environmental Geology	4	GE 2341: Geology	1/3
ENV 138: Soil and the Environment	4	EL 1XXX: General Elective 1000 Level	1/3
ENV 140: People and the Environment	4	SS 1XXX: Social Science 1000 Level Elective	1/3
ENV 253: Aquatic Ecology and Pollution	4	EL 1XXX: General Elective 1000 Level	1/3
PHS 101: General Physics I	4	PH 1XXX: Physics 1000 Level Elective	1/3
PHS 111: Physics for Engineers and Science Majors I	4	PH 1110: General Physics - Mechanics	1/3
PHS 112: Physics for Engineers and Science Majors II	4	PH 1120: General Physics—Electricity And Magnetism	1/3
SEM 130: Topics in Science	4	EL 1XXX: General Elective 1000 Level	1/3
SUS 101: Introduction to Sustainability Studies	4	ENV 1XXX: Environmental Science 1000 Level Elective	1/3

HCC Mathematics Electives with WPI Course Equivalencies

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
MTH 104: College Algebra	4	No WPI Equivalency	---
MTH 108: Precalculus	4	No WPI Equivalency	---
MTH 113: Calculus I	4	MA 1021: Calculus I	1/3
MTH 114: Calculus II	4	MA 1022: Calculus II	1/3
MTH 125: Number Systems	3	No WPI Equivalency	---
MTH 142: Statistics	3	MA 2611: Applied Statistics I	1/3
MTH 162: Applied Calculus	3	MA 1021: Calculus I	1/3
MTH 190: Introduction to Data Science	3	DS 1010: Data Science I: Introduction to Data Science	1/3
MTH 205: Linear Algebra	4	MA 2071: Matrices and Linear Algebra I	1/3
MTH 213: Calculus III	4	MA 1024: Calculus Iv	1/3
MTH 214: Differential Equations	4	MA 2051: Ordinary Differential Equations	1/3
MTH 230: Discrete Mathematics	4	MA 2201: Discrete Mathematics	1/3
PSY 142: Statistics for Psychology	4	MA 2610: Applied Statistics For The Life Sciences	1/3

HCC Engineering with WPI Course Equivalencies

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
EGR 102: Introduction To Matlab Programming	1	No WPI Equivalency	---
EGR 109: Introduction To Electronic Digital Circuits With Verilog	4	ECE 2029: Introduction to Digital Circuit Design	1/3
EGR 110: Introduction To Robotics I	4	RBE 1XXX: RBE 1000 Level Elective	1/3
EGR 111: Introduction To Robotics II	4	RBE 1XXX: RBE 1000 Level Elective	1/3
EGR 117: Introduction To Engineering With Computer Applications	3	EL 1XXX: General Elective 1000 Level	1/3
EGR 118: Introduction To Engineering With Java	4	ES 1XXX: Engineering Science 1000 Level Elective	1/3
EGR 203: Introduction To Materials Science	3	ES 2001: Introduction to Materials Science	1/3
EGR 209: Dynamics	3	ES 2503: Introduction to Dynamic Systems	1/3
EGR 221: Mechanics I - Statics	3	ES 2501: Introduction to Static Systems	1/3
EGR 222: Mechanics II - Strength Of Materials	3	ES 2502: Stress Analysis	1/3
EGR 223: System Analysis (Circuit Analysis I)	4	ECE 2311: Continuous-Time Signal and Systems Analysis	1/3
EGR 224: System Analysis (Circuit Analysis II)	4	ECE 2311: Continuous-Time Signal and Systems Analysis	1/3
EGR 250: Thermodynamics	3	ES 3001: Introduction to Thermodynamics	1/3

HCC CSI Courses with WPI Course Equivalencies

Holyoke Community College Course	Credits	Worcester Polytechnic Course	Units
CSI 105: Principles of Information Security and Assurance	3	CS 1XXX: Computer Science 1000 Level Elective	1/3
CSI 106: Programming Fundamentals I	4	CS 1XXX: Computer Science 1000 Level Elective	1/3
CSI 111: Computer Concepts with Applications	4	EL 1XXX: General Elective 1000 Level	1/3
CSI 121: Foundations of Linux	4	EL 1XXX: General Elective 1000 Level	1/3
CSI 214: Systems Analysis and Design	3	CS 2XXX: Computer Science 2000 Level Elective	1/3
CSI 218: Programming Fundamentals II	4	CS 2119: Application Building with Object-Oriented Concepts	1/3
CSI 242: Applied Database Management	3	CS 3431: Database Systems I	1/3
CSI 251: Network Development	3	CS 2XXX: Computer Science 2000 Level Elective	1/3
CSI 254: Java Programming I	4	CS 2XXX: Computer Science 2000 Level Elective	1/3
CSI 258: Data Structures	4	CS 2XXX: Computer Science 2000 Level Elective	1/3
CSI 264: Disaster Recovery	3	CS 2XXX: Computer Science 2000 Level Elective	1/3