

Mount Wachusett 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 MWCC associate degree provides ideas for what major you could pursue at WPI on the following pages

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

| MWCC Course | Credit | WPI Course Equivalency | Units |
|--------------------------------------|--------|--|-------|
| CHE 107: General Chemistry I | 4 | *CH 1010: Chemical Properties, Bonding, and Forces | 1/3 |
| BIO 118: Biology I | 4 | BB 1101: Foundations of Cellular & Molecular Biotechnology | 1/3 |
| ENG 101: College Writing I | 3 | WR 1010: Elements of Writing | 1/3 |
| MAT 162: College Algebra | 4 | No WPI Equivalency | --- |
| | | | |
| MAT 163: Pre-Calculus (or higher) | 4 | No WPI Equivalency | --- |
| ENG 102: College Writing II | 3 | EN 1251: Introduction to Literature | 1/3 |
| CHE 108: General Chemistry II | 4 | *CH 1020: Chemical Reactions | 1/3 |
| BIO 119: Biology II | 4 | BB 1102: Foundations of Ecology and Environmental Biology | 1/3 |
| | | | |
| CHE 207: Organic Chemistry I | 4 | **CH 2310: Organic Chemistry I | 1/3 |
| PSY 105: Introduction To Psychology | 3 | PSY 1400: Introduction to Psychological Science | 1/3 |
| Professional Elective (rec: MAT 211) | 4 | MWCC Biology - Professional Electives (rec: MA 1021) | 1/3 |
| Humanities Elective | 3 | See Humanities Electives Table | 1/3 |
| | | | |
| CHE 208: Organic Chemistry II | 4 | **CH 2320: Organic Chemistry II | 1/3 |
| Professional Elective (rec: MAT 143) | 3, 4 | MWCC Biology - Professional Electives (rec: MA 2611) | 1/3 |
| Social Science Elective | 3 | See HIS courses in Social Science Electives Table | 1/3 |
| Humanities Elective | 3 | See Humanities Electives Table | 1/3 |
| BIO 210: Genetics | 4 | BB 2920: Genetics | 1/3 |

*CHE 107 and CHE 108 combined are equivalent to CH 1010, CH 1020, and CH 1030

**CHE 207 and CHE 208 together are equivalent to CH 2310, CH 2320, and CH2660

Chemistry at MWCC to 'Chemistry' or 'Biochemistry' at WPI

| MWCC Course | Credit | WPI Course Equivalency | Units |
|--|--------|--|-------|
| CHE 107: General Chemistry I | 4 | *CH 1010: Chemical Properties, Bonding, and Forces | 1/3 |
| ENG 101: College Writing I | 3 | WR 1010: Elements of Writing | 1/3 |
| MAT 163: Pre-Calculus | 4 | No WPI Equivalency | --- |
| Social Science Elective | 3 | See Social Science Electives Table | 1/3 |
| | | | |
| CHE 108: General Chemistry II | 4 | *CH 1020: Chemical Reactions | 1/3 |
| ENG 102: College Writing II | 3 | EN 1251: Introduction to Literature | 1/3 |
| MAT 211: Calculus I | 4 | ##MA 1021: Calculus I | 1/3 |
| Social Science Elective | 3 | See HIS courses in Social Science Electives Table | 1/3 |
| BIO 118: Biology I | 4 | BB 1101: Foundations of Cellular and Molecular Biotech | 1/3 |
| | | | |
| CHE 207: Organic Chemistry I | 4 | **CH 2310: Organic Chemistry I | 1/3 |
| MAT 212: Calculus II | 4 | ##MA 1022: Calculus II | 1/3 |
| PHY 120: Physics for Engineering and Science I | 4 | PH1110: General Physics - Mechanics | 1/3 |
| Humanities Elective | 3 | See Humanities Electives Table | 1/3 |
| | | | |
| PHY 121: Physics for Engineering & Science II | 4 | PH 1120: General Physics - Electricity and Magnetism | 1/3 |
| CHE 208: Organic Chemistry II | 4 | **CH 2320: Organic Chemistry II | 1/3 |
| Humanities Elective | 3 | See Humanities Electives Table | 1/3 |
| Professional Electives (rec: MAT 213) | 4 | ##MA 1024: Calculus IV | 1/3 |

*CHE 107 and CHE 108 combined are equivalent to CH 1010, CH 1020, and CH 1030

**CHE 207 and CHE 208 together are equivalent to CH 2310, CH 2320, and CH2660

##MAT 211, MAT 212, and MAT 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

**Mathematics at MWCC
to 'Mathematics' or 'Actuarial Mathematics' at WPI**

| MWCC Course | Credit | WPI Course Equivalency | Units |
|---|---------------|---|--------------|
| MAT 211: Calculus I | 4 | ##MA 1021: Calculus I | 1/3 |
| MAT 143: Statistics | 3 | MA 2611: Applied Statistics I | 1/3 |
| ENG 101: College Writing I | 3 | WR 1010: Elements of Writing | 1/3 |
| Social Science Elective | 3 | See PSY, SOC, ECO courses in Social Science Electives Table | 1/3 |
| Science Elective (BIO, CHEM, PHY) | 3-4 | See Lab Science and Science Electives Tables | 1/3 |
| | | | |
| MAT 212: Calculus II | 4 | ##MA 1022: Calculus II | 1/3 |
| MAT 180: Discrete Mathematics | 3 | MA 2201: Discrete Mathematics | 1/3 |
| CIS 150: Computer Science I | 3 | CS 1XXX: Computer Science 1000 level elective | 1/3 |
| ENG 102: College Writing II | 3 | EN 1251: Introduction to Literature | 1/3 |
| See PHL courses in Humanities Electives (rec: PHL 135 or PHL 235) | 3 | See MWCC PHL courses in Humanities Table | 1/3 |
| | | | |
| MAT 213: Calculus III | 4 | ##MA 1024: Calculus IV | 1/3 |
| MAT 220 Linear Algebra | 4 | MA 2071: Matrices and Linear Algebra I | 1/3 |
| PHY 120: Physics for Engineering & Science I | 4 | PH1110: General Physics - Mechanics | 1/3 |
| Literature Elective | 3 | See Literature Elective Table | 1/3 |
| | | | |
| MAT 230: Ordinary Differential Equations | 4 | MA 2051: Ordinary Differential Equations | 1/3 |
| PHY 121: Physics for Engineering & Science II | 4 | PH 1120: General Physics - Electricity and Magnetism | 1/3 |
| Social Science Elective | 3 | See HIS courses in Social Science Electives Table | 1/3 |
| Lab Science Elective | 4 | See Lab Science Electives Table | 1/3 |

##MAT 211, MAT 212, and MAT 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

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

| MWCC Course | Credit | WPI Course Equivalency | Units |
|---|--------|---|-------|
| CIS 150: Computer Science I | 3 | CS 1XXX: Computer Science 1000 level elective | 1/3 |
| ENG 101: College Writing I | 3 | WR 1010: Elements of Writing | 1/3 |
| MAT 211: Calculus I | 4 | MA 1021: Calculus I | 1/3 |
| MAT 143: Statistics | 3 | MA 2611: Applied Statistics | 1/3 |
| Lab Science Elective | 4 | See Lab Science Electives Table ¹ | 1/3 |
| | | | |
| CIS 152: Computer Science II | 3 | CS 2XXX: Computer Science 2000 level elective | 1/3 |
| ENG 102: College Writing II | 3 | EN 1251: Introduction to Literature | 1/3 |
| MAT 212: Calculus II | 4 | MA 1022: Calculus II | 1/3 |
| MAT 180: Discrete Mathematics | 3 | MA 2201: Discrete Mathematics | 1/3 |
| Lab Science Elective | 4 | See Lab Science Electives Table ¹ | 1/3 |
| | | | |
| CIS 250: Systems Programming | 3 | CS 2301: Systems Programming for Non-Majors | 1/3 |
| MAT 220: Linear Algebra | 4 | MA 2071: Linear Algebra | 1/3 |
| Humanities Elective | 3 | See Humanities Electives Table | 1/3 |
| Social Science Elective | 3 | See Social Science Electives Table | 1/3 |
| | | | |
| CIS 252: Algorithms and Data Structures | 3 | CS 2223: Algorithms | 1/3 |
| CIS 224: Database Design and Implementation | 3 | CS 3431: Database Systems I | 1/3 |
| SPC 113: Speech (formerly THE113) | 3 | No WPI Equivalency | --- |
| History Elective | 3 | See History Electives Table | 1/3 |
| Literature Elective | 3 | See Literature Electives Table | 1/3 |

If you are interested in WPI Bioinformatics and Computation Biology, take Chem I, Chem II, cell biology, genetics, molecular biology

Engineering and Physics at MWCC

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

| MWCC Course | Credit | WPI Course Equivalency | Units |
|---|--------|--|-------|
| ENG 101: College Writing I | 3 | WR 1010: Elements of Writing | 1/3 |
| CHE 107: General Chemistry I | 4 | *CH 1010: Chemical Properties, Bonding, and Forces | 1/3 |
| MAT 211: Calculus I | 4 | ##MA 1021: Calculus I | 1/3 |
| Social Science Elective | 3 | See Note 1 and Social Science Electives Table | 1/3 |
| PHY 120: Physics for Engineering & Science I | 4 | PH1110: General Physics - Mechanics | 1/3 |
| | | | |
| ENG 102: College Writing II | 3 | EN 1251: Introduction to Literature | 1/3 |
| MAT 212: Calculus II | 4 | ##MA 1022: Calculus II | 1/3 |
| Humanities Elective (Rec: PHL 135) | 3 | See Humanities Electives Table (Rec: PY 2731) | 1/3 |
| PHY 121: Physics for Engineering & Science II | 4 | PH 1120: General Physics - Electricity and Magnetism | 1/3 |
| | | | |
| Science Elective | 3-4 | See Suggested Courses below | 1/3 |
| Science Elective | 3-4 | See Suggested Courses below | 1/3 |
| CAD 1010: Introduction to CAD | 3 | ES 1310: Introduction to Computer Aided Design | 1/3 |
| Social Science Elective | 3 | See HIS courses in Social Science Electives Table | 1/3 |
| MAT 213: Calculus III | 4 | ##MA 1024: Calculus IV | 1/3 |
| | | | |
| MAT or Science Elective | 3-4 | See Suggested Courses below | 1/3 |
| Science Elective | 3-4 | See Suggested Courses below | 1/3 |
| PHL Electives (rec: PHL 235) | 3 | See PHL courses in Humanities Table (Rec. PY 2719) | 1/3 |
| MAT 230: Ordinary Differential Equations | 4 | MA 2051: Ordinary Differential Equations | 1/3 |

*CHE 107 and CHE 108 combined are equivalent to CH 1010, CH 1020, and CH 1030

##MAT 211, MAT 212, and MAT 213 combined are equivalent to MA 1021, MA 1022, MA 1023, and MA 1024

*****DRAFT*** Suggested Math or Science Electives based on anticipated WPI major**

| | | | |
|-----------------------------------|--|---------------------------|--|
| Aerospace Engineering | Any other PHY 201 MAT 220 PHY 202 | Environmental Engineering | CHE 108 PHY 201 CHE 207 PHY 202 |
| Architectural Engineering | Any other Any other MAT 220 Any other | Industrial Engineering | PHY 201 PHY 202 MAT 220 CHE 108 |
| Biomedical Engineering | BIO 118 BIO 210 PHY 201 CHE 108 | Management Engineering | PHY 201 PHY 202 Any other Any other |
| Chemical Engineering | CHE 108 CHE 207 CHE 208 BIO 118 | Mechanical Engineering | CHE 108 PHY 201 MAT 220 PHY 202 |
| Civil Engineering | BIO 118 CH 108 PHY 201 Any other | Robotics Engineering | CHE 108 PHY 201 MAT 220 PHY 202 |
| Electrical & Computer Engineering | PHY 201 PHY 202 CH 108 Any other | | |

MWCC Lab Science Electives with WPI Course Equivalencies

| MWCC Course | Credit | WPI Course Equivalency | Units |
|---|--------|--|-------|
| BIO 109: Biology I | 4 | BB 1XXX: Biology 1000 Level Elective | 1/3 |
| BIO 110: Biology II | 4 | BB 1102: Foundations Of Ecology And Environmental Biology | 1/3 |
| BIO 116: Ecology | 4 | BB 2040: Principles Of Ecology | 1/3 |
| BIO 118 Biology I | 4 | BB 1101: Foundations Of Cellular And Molecular Biotechnology | 1/3 |
| BIO 119 Biology II | 4 | BB 1102: Foundations Of Ecology And Environmental Biology | 1/3 |
| BIO 130: Botany: Plant Science | 4 | BB 2030: Plant Diversity | 1/3 |
| BIO 152 Essentials Of Anatomy And Physiology | 4 | BB 2101: Foundations Of Physiology | 1/3 |
| BIO 205 Microbiology | 4 | BB 2002: Microbiology | 1/3 |
| BIO 210: Genetics | 4 | BB 2920: Genetics | 1/3 |
| CHE 107: General Chemistry I | 4 | CH 1010: Chemical Properties, Bonding, And Forces | 1/3 |
| CHE 107: General Chemistry I | 4 | CH 1010: Chemical Properties, Bonding, and Forces | 1/3 |
| CHE 108 General Chemistry II | 4 | CH 1020: Chemical Reactions | 1/3 |
| | | CH 1030: Kinetics, Equilibrium, and Thermodynamics | 1/3 |
| CHE 207: Organic Chemistry I | 4 | CH 2310: Organic Chemistry I | 1/3 |
| CHE 208: Organic Chemistry II | 4 | CH 2320: Organic Chemistry II | 1/3 |
| EAS 115: Paleontology: Evolution Of Life | 4 | No WPI Equivalency | --- |
| EAS 125: Physical Geology Of The Earth | 4 | GE 2341: Geology | 1/3 |
| EAS 126: Weather And Climate | 4 | !!! EL 1XXX: General Elective 1000 Level | 1/3 |
| PHY 120: Physics For Engineering And Science I | 4 | PH 1110: General Physics—Mechanics | 1/3 |
| PHY 121: Physics For Engineering And Science II | 4 | PH 1120: General Physics—Electricity And Magnetism | 1/3 |

!!! EL 1XXX: General elective 1000 Level will likely only go as a free elective or unused credit

MWCC Science Electives with WPI Course Equivalencies

| MWCC Course | Credit | WPI Course Equivalency | Units |
|---------------------------------|--------|--------------------------|-------|
| PHY 201: Mechanics I: Statics | 3 | ES 2501: Statics | 1/3 |
| PHY 201: Mechanics II: Dynamics | 3 | ES 2503: Dynamics | 1/3 |
| BIO 128: Plants and Society | 3 | BB 2030: Plant Diversity | 1/3 |

MWCC Math Electives with WPI Course Equivalencies

| MWCC Course | Credit | WPI Course Equivalency | Units |
|-------------------------|--------|-------------------------|-------|
| MAT 220: Linear Algebra | 4 | MA 2071: Linear Algebra | 1/3 |

MWCC Social Science Electives with WPI Course Equivalencies

| MWCC Course | Credit | WPI Course Equivalency | Units | WPI Note |
|---|--------|--|-------|----------------------------|
| PSY 101: Psychology of Self | 3 | PSY 1XXX: Psychology 1000 Level Elective | 1/3 | Social Science Requirement |
| PSY 110: Human Growth and Development | 3 | PSY 1404: Developmental Psychology | 1/3 | Social Science Requirement |
| PSY 105: Introduction to Psychology | 3 | PSY 1400: Introduction to Psychological Science | 1/3 | Social Science Requirement |
| PSY 280: Psychology of Death And Dying | 3 | PSY 2800: Special Topics in Psychological Science | 1/3 | Social Science Requirement |
| SOC 103: Introduction to Sociology | 3 | SOC 1202: Introduction to Sociology And Cultural Diversity | 1/3 | Social Science Requirement |
| ECO 101: Macroeconomics | 3 | ECON 1120: Introductory Macroeconomics | 1/3 | Social Science Requirement |
| ECO 102: Microeconomics | 3 | ECON 1110: Introductory Microeconomics | 1/3 | Social Science Requirement |
| HIS 105: History of World Civilization I | 3 | HI 1322: Introduction to European History | 1/3 | Humanities Requirement |
| HIS 106: History of World Civilization II | 3 | HI 1341: Introduction to Global History | 1/3 | Humanities Requirement |
| HIS 123: History of Modern America | 3 | HI 2315: The Shaping of Post-1920 America | 1/3 | Humanities Requirement |
| HIS 201: History of United States I | 3 | HI 2313: American History, 1789-1877 | 1/3 | Humanities Requirement |
| POL 211: Introduction to American Government And Politics | 3 | SS 1XXX: Social Science 1000 Level Elective | 1/3 | Social Science Requirement |

MWCC Humanities Electives with WPI Course Equivalencies

| MWCC Course | Credit | WPI Course Equivalency | Credit |
|---|--------|--|--------|
| ART 101: Introduction to Painting | 3 | AR 1100: Essentials of Art | 1/3 |
| ART 103: Introduction to Sculpture | 3 | AR 1100: Essentials of Art | 1/3 |
| ART 105: Introduction to Drawing | 3 | AR 2202: Figure Drawing | 1/3 |
| ART 252: Three-Dimensional design | 3 | AR 2101: 3D Modeling | 1/3 |
| ENG 101: College Writing I | 3 | WR 1010: Elements of Writing | 1/3 |
| ENG 102: College Writing II | 3 | EN 1251: Introduction To Literature | 1/3 |
| ENG 221: Women's Literature | 3 | HU 2502: Global Feminisms | 1/3 |
| ENG 224: Mystery Fiction | 3 | HU 1XXX: Humanities 1000 Level Elective | 1/3 |
| ENG 233: Science Fiction | 3 | HU 1XXX: Humanities 1000 Level Elective | 1/3 |
| ENG 235: Children's Literature | 3 | No WPI: Equivalency | --- |
| ENG 290: Advanced Writing and Research | 3 | WR 3112: Rhetorical Theory | 1/3 |
| HUM 260: The Art of Being Human I | 3 | HU 1401: Introduction To Humanities and Arts I | 1/3 |
| MUS 130: Class Piano I | 3 | HU 1XXX: Humanities 1000 Level Elective | 1/3 |
| PHL 110: Logic | 3 | PY 1731: Introduction To Philosophy and Religion | 1/3 |
| PHL 135: Applied Ethics | 3 | PY 2731: Ethics | 1/3 |
| PHL 235: The Philosophy of Nature, Science, and Mathematics | 3 | PY 2719: Philosophy of Science | 1/3 |
| PHL 201: Introduction to Philosophical Issues | 3 | PY 1731: Introduction To Philosophy and Religion | 1/3 |
| PHL 209: Symbolic Logic | 3 | PY 1731: Introduction To Philosophy and Religion | 1/3 |
| PHL 220: introduction to Social and Political Philosophy | 3 | PY 2712: Social and Political Philosophy | 1/3 |
| PHL 250: Moral Philosophy | 3 | PY 2731: Ethics | 1/3 |
| HUM 240: Comparative Religion | 3 | PY 3712: Philosophy of Religion | 1/3 |
| HUM 212: Medical Ethics | 3 | PY 2731: Ethics | 1/3 |
| HUM 260: The Art of Being Human I | 3 | HU 1401: Introduction To Humanities and Arts I | 1/3 |
| MUS 140: Classic Guitar I | 3 | MU 1511: Introduction to Music | 1/3 |
| MUS 160: History of Rock and Roll | 3 | MU 2020: History of American Popular Music | 1/3 |
| MUS 130: Class Piano I | 3 | HU 1XXX: Humanities 1000 Level Elective | 1/3 |

MWCC Literature Electives with WPI Course Equivalencies

| MWCC Course | Credit | WPI Course Equivalency | Units |
|-----------------------------|--------|--|-------|
| ENG 205: Shakespeare | 3 | EN 1222: Shakespeare in the Age of Elizabeth | 1/3 |
| ENG 224: Mystery Fiction | 3 | HU 1XXX: Humanities 1000 Level Elective | 1/3 |
| ENG 233: Science Fiction | 3 | HU 1XXX: Humanities 1000 Level Elective | 1/3 |
| ENG 221: Women's Literature | 3 | HU 2502: Global Feminisms | 1/3 |

MWCC History Electives with WPI Course Equivalencies

| MWCC Course | Credit | WPI Course Equivalency | Units |
|---|--------|---|-------|
| HIS 105: History of World Civilization I | 3 | HI 1322: Introduction to European History | 1/3 |
| HIS 106: History of World Civilization II | 3 | HI 1341: Introduction to Global History | 1/3 |
| HIS 123: History of Modern America | 3 | HI 2315: The Shaping of Post-1920 America | 1/3 |
| HIS 201: History of United States I | 3 | HI 2313: American History, 1789 - 1877 | 1/3 |
| HIS 202: History of United States II | 3 | HI 2314: American History, 1877 - 1920 | 1/3 |