

MITRANSFER PATHWAYS

ARTICULATION AGREEMENT

BIOLOGY

MITRANSFER PATHWAYS ARTICULATION AGREEMENT: BIOLOGY

OVERVIEW

In Fall 2017, the Michigan Community College Association (MCCA) and the Michigan Association of State Universities (MASU) received a one-time appropriation from the state of Michigan to support the development of multi-institutional associate to bachelor's degree transfer pathways. MCCA and MASU in partnership with the Michigan Independent Colleges and Universities (MICU) and the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) convened the Transfer Steering Committee with more than 30 representatives from colleges and universities from across the state to develop the MiTransfer Pathways project. The MiTransfer Pathways project plan selected 12 programs with high enrollment and/or high labor market demand. The goal of the project was to build multi-institutional transfer pathways so students can enroll at any participating community college, complete an associate degree, transfer, and complete a bachelor's degree in the identified program of study.

In spring and fall of 2018, biology faculty from community colleges, public universities, and independent colleges and universities in Michigan met to identify courses that are required, recommended, optional or appropriate in the first and second year of the bachelor's degree programs at all participating universities. We refer to these commonly required courses as "MiTransfer Pathways courses." The MiTransfer Pathways courses in biology are:

- Cell/Molecular Biology
- Organismal Biology
- General Chemistry I
- General Chemistry II
- Organic Chemistry I
- Organic Chemistry II

These courses have been reviewed by receiving institutions and will be accepted for transfer and applied to the biology program at all participating institutions (unless otherwise indicated in this agreement). The participating institutions agreed to establish direct equivalencies between these courses. Direct equivalencies are established when a course at the sending institution transfers as a direct equivalent to the course at the receiving institution and the credit is transcribed as a department and number (i.e. BIO 105) instead of department and no number (i.e. BIO GEN or BIO 100X). Direct equivalency is preferred because students can see how the transferred course applies to the degree program.

In addition to identifying MiTransfer Pathways courses as described above, the faculty also identified Remaining Degree Requirements. The Remaining Degree Requirements identified by receiving institutions (universities) include courses that students can transfer from the community college but were not identified as MiTransfer Pathways courses because they were not accepted at every participating receiving institution. The Remaining Degree Requirements identified by sending

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institutions (community colleges) included courses or requirements that meet community college degree requirements but will not necessarily transfer to participating universities. Participating institutions submitted program worksheets (see Appendices A and B) that outlined these courses. Participating institutions will use these worksheets to communicate requirements to students.

TERMS OF THE AGREEMENT

1. This agreement is effective on December 6, 2019.
2. Participating institutions agree that all courses must be completed with a grade of C (2.0) or better unless otherwise indicated by the receiving institution.
3. Participating institutions agree that to use this agreement, students must apply and be admitted to the participating institution and to the program if the program requires secondary admission. Receiving institutions agree to communicate the application process for institution and program admissions for transfer students on a publicly available website and through advising.
4. Participating institutions agree to accept the Michigan Transfer Agreement (MTA) in accordance with the institutions' MTA policy.
5. Participating institutions agree to award equivalent credit for MiTransfer Pathways courses (see Course Equivalency Matrices in Appendix C) and apply courses to the bachelor's degree requirements unless otherwise noted in the Course Equivalency Exceptions documented in Appendix D. If no direct equivalent exists because the course is not offered or required at the receiving institution, then the receiving institution agrees to accept the course and apply the course toward the Biology degree program. If the community college does not offer the course, the community college should communicate this information to students on a publicly available website and/or the Michigan Transfer Network at mitransfer.org and help students find an equivalent course at other institutions.
6. Participating institutions agree to upload course equivalencies for MiTransfer Pathways courses to the Michigan Transfer Network at mitransfer.org.
7. Receiving institutions agree to accept the Remaining Degree Requirements as outlined in the receiving institutions' Program Worksheet included in Appendix B. Participating institutions agree to work toward awarding direct equivalency for Remaining Degree Requirements, apply courses to the bachelor's degree requirements, and add course equivalencies to the Michigan Transfer Network.

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8. Sending institutions agree that Remaining Degree Requirements identified by community colleges that are not required by the receiving institution may not transfer or may not apply to bachelor's degree requirements at the receiving institution.
9. Alternative credit awarded by the sending institution through AP, CLEP, IB, credit earned through credit for prior learning, or other means may be accepted and applied to the degree program at the discretion of the university. Sending institutions may apply alternative credit to the associate degree, but students should confirm whether or not credit is acceptable at receiving institutions.
10. Students may earn credit from multiple institutions as long as the course was completed at a sending institution that is participating in the agreement. There is no assurance that credits earned from institutions not participating in the agreement will apply.
11. Participating institutions agree to maintain up-to-date course equivalencies and information about their participation with this agreement. This information will be made publicly available through their own systems and on the mittransfer.org website.
12. In the performance of their respective duties and obligations under this Agreement, each Party is an independent contractor, and neither is the agent, employee, or servant of the other. Each is responsible only for its own conduct.

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MAINTENANCE AND REVIEW

Modifications to Worksheets and Equivalencies

Colleges and universities will use the worksheets in Appendix A and B as the basis to advise transfer students. Any changes to program worksheets in Appendix A and B should be communicated to participating institutions as soon as possible to avoid students completing courses that will not transfer. Changes may include:

- Adding programs in the pathway (e.g., add Environmental Studies to the Biology pathway);
- Modifying, removing, or adding MiTransfer Pathways courses;
- Modifying, removing, or adding courses to the Remaining Degree Requirements;
- Materially modifying the educational experience or content of the MiTransfer Pathways courses.

If any of the aforementioned changes occur, participating institutions are expected to communicate with their sector representative from the Michigan Association of State Universities (MASU), Michigan Community College Association (MCCA), or Michigan Independent Colleges and Universities (MICU). These changes will be vetted among participating institutions, including reviewing and establishing equivalencies where needed. Changes to the worksheets and equivalencies will be documented and available at mitransfer.org website.

Joining the Agreement

Institutions can join the agreement at any time and should contact their sector representative at the Michigan Association of State Universities, the Michigan Community College Association, or the Michigan Independent Colleges and Universities. Institutions that join the agreement will be required to comply with the terms of the agreement.

Renewing the Agreement

This agreement will be up for renewal on June 30, 2022. The Michigan Community College Association, the Michigan Association of State Universities, and the Michigan Independent Colleges and Universities agree to coordinate renewal of this agreement during the 2021-2022 academic year. Participating institutions may choose to leave the agreement at that time.

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SIGNATURES

By signing this agreement, institutions agree to the terms of the agreement and maintenance and review.

MICHIGAN COMMUNITY COLLEGE ASSOCIATION

SIGNATURE	NAME	TITLE	INSTITUTION
<i>Deborah A. Bayer, MS</i>	Deborah A. Bayer, MS	Vice President of Instruction	Alpena Community College
<i>Deborah J. Hautau</i>	Deborah J. Hautau	Biology Faculty	Alpena Community College
<i>Donald C. MacMaster, Ed.D.</i>	Donald C. MacMaster, Ed.D.	President	Alpena Community College
<i>Jeremy Belanger</i>	Jeremy Belanger	Executive Director of Transfer & Student Advising	Bay College
<i>Jean Goodnow, Ph.D.</i>	Jean Goodnow, Ph.D.	President	Delta College
<i>Reva Curry, Ph.D</i>	Reva Curry, Ph.D	Vice President of Instruction/Learning Services	Delta College
<i>Virginia Przygocki</i>	Virginia Przygocki	Dean, Career Education and Learning Partnerships	Delta College
<i>David H. Devier</i>	David H. Devier	President	Glen Oaks Community College
<i>Michael Goldin</i>	Michael Goldin	Interim Dean of Academics	Glen Oaks Community College
<i>George McNulty</i>	George McNulty	President	Gogebic Community College
<i>Bill Pink</i>	Bill Pink	President	Grand Rapids Community College

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<i>Brian Knetl</i>	Brian Knetl	Provost and Executive Vice President, Academic and Student Affairs	Grand Rapids Community College
<i>Janice Gilliland</i>	Janice Gilliland	Dean of the School of Science, Technology, Engineering and Mathematics	Henry Ford College
<i>Michael A. Nealon</i>	Michael A. Nealon	Vice President of Academic Affairs	Henry Ford College
<i>Dr. Daniel J. Phelan</i>	Dr. Daniel J. Phelan	President/CEO	Jackson College
<i>Dr. Kate Thirolf</i>	Dr. Kate Thirolf	Vice President for Instruction	Jackson College
<i>Dr. Todd Butler</i>	Dr. Todd Butler	Dean, Arts & Sciences	Jackson College
<i>Marshall Washington, Ph.D.</i>	Marshall Washington, Ph.D.	President	Kalamazoo Valley Community College
<i>Peter Linden</i>	Peter Linden	Provost and Vice President for Instruction and Student Services	Kalamazoo Valley Community College
<i>Carole J. Davis</i>	Carole J. Davis	Chair, Math and Science	Kellogg Community College
<i>Mark P. O'Connell</i>	Mark P. O'Connell	President	Kellogg Community College
<i>Paul R. Watson II</i>	Paul R. Watson II	Vice President for Instruction	Kellogg Community College
<i>Tonya P. Forbes</i>	Tonya P. Forbes	Dean, Arts and Sciences	Kellogg Community College
<i>Julie Lavender</i>	Julie Lavender	Vice President of Instructional Services	Kirtland Community College
<i>Thomas Quinn</i>	Thomas Quinn	President	Kirtland Community College

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<i>Dr. Leslie Kellogg</i>	Dr. Leslie Kellogg	Provost and Vice President of Academic Affairs	Lake Michigan College
<i>Brent Knight</i>	Brent Knight	President	Lansing Community College
<i>Donald Ritzenhein, Ph.D.</i>	Donald Ritzenhein, Ph.D.	Provost and Vice President of the Learning Unit	Macomb Community College
<i>Christine M. Hammond, Ph.D.</i>	Christine M. Hammond, Ph.D.	President	Mid Michigan College
<i>Jennifer Fager, Ph.D.</i>	Jennifer Fager, Ph.D.	Vice President for Academic Affairs	Mid Michigan College
<i>Richard J. Smith, Ed.D.</i>	Richard J. Smith, Ed.D.	Associate Dean and Transfer Liaison	Mid Michigan College
<i>Grace Yackee</i>	Grace Yackee	Vice President of Instruction	Monroe County Community College
<i>Kevin Cooper</i>	Kevin Cooper	Dean of Science/Mathematics	Monroe County Community College
<i>Kojo Quartey</i>	Kojo Quartey	President	Monroe County Community College
<i>Robert Ferrentino</i>	Robert Ferrentino	President	Montcalm Community College
<i>Robert Spohr</i>	Robert Spohr	Vice President for Academic Affairs	Montcalm Community College
<i>Beverly Walker-Griffea</i>	Beverly Walker-Griffea	President	Mott Community College
<i>Chuck Wade</i>	Chuck Wade	Biology Faculty	Mott Community College
<i>Michelle Glenn</i>	Michelle Glenn	Interim Vice President of Academic Affairs	Mott Community College
<i>Todd Troutman</i>	Todd Troutman	Dean of Science & Mathematics	Mott Community College
<i>Dale Nesbary, Ph.D.</i>	Dale Nesbary, Ph.D.	President	Muskegon Community College

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<i>Kelley Conrad</i>	Kelley Conrad	Vice President for Academic Affairs	Muskegon Community College
<i>David Roland Finley, Ph.D.</i>	David Roland Finley, Ph.D.	President	North Central Michigan College
<i>Debra Pharo</i>	Debra Pharo	Science and Mathematics Academic Area Chair	Northwestern Michigan College
<i>Stephen N. Siciliano</i>	Stephen N. Siciliano	Vice President for Educational Services	Northwestern Michigan College
<i>Timothy J. Nelson</i>	Timothy J. Nelson	President	Northwestern Michigan College
<i>M. Cathey Maze</i>	M. Cathey Maze	Vice Chancellor for Academic Affairs	Oakland Community College
<i>Cheryl Hawkins, PhD</i>	Cheryl Hawkins, PhD	Vice President and Chief Academic Officer	Schoolcraft College
<i>Conway Jeffress, PhD</i>	Conway Jeffress, PhD	President	Schoolcraft College
<i>Michele Kelly, PhD</i>	Michele Kelly, PhD	Dean Liberal Arts and Science	Schoolcraft College
<i>David W Fleming</i>	David W Fleming	Vice President of Instruction	Southwestern Michigan College
<i>Julie Armstrong</i>	Julie Armstrong	Chief of Staff	St. Clair County Community College
<i>Kimberly Hurns, DM</i>	Kimberly Hurns, DM	Vice President for Instruction	Washtenaw Community College
<i>Patrick J. McNally</i>	Patrick J. McNally	Vice Chancellor, Curriculum and Distance Learning	Wayne County Community College District
<i>Dr. Brooke Portmann</i>	Dr. Brooke Portmann	Dean of Arts and Sciences	West Shore Community College
<i>Dr. Mark Kinney</i>	Dr. Mark Kinney	Vice President of Academics and Student Services	West Shore Community College
<i>Dr. Paul Bilinski</i>	Dr. Paul Bilinski	Associate Professor of Biology	West Shore Community College

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<i>Scott Ward</i>	Scott Ward	President	West Shore Community College
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MICHIGAN ASSOCIATION OF STATE UNIVERSITIES

SIGNATURE	NAME	TITLE	INSTITUTION
<i>Dr. Jane M. Davison</i>	Dr. Jane M. Davison	Acting Dean, College of Science and Engineering	Central Michigan University
<i>Dr. Mary Schutten</i>	Dr. Mary Schutten	Provost and Executive Vice President	Central Michigan University
<i>Dr. Robert O. Davies</i>	Dr. Robert O. Davies	President	Central Michigan University
<i>Dana Heller, Ph.D.</i>	Dana Heller, Ph.D.	Dean, College of Arts & Sciences	Eastern Michigan University
<i>James M. Smith, Ph.D.</i>	James M. Smith, Ph.D.	President	Eastern Michigan University
<i>Marianne Laporte, Ph.D.</i>	Marianne Laporte, Ph.D.	Department Head, Biology	Eastern Michigan University
<i>Rhonda Longworth, Ph.D.</i>	Rhonda Longworth, Ph.D.	Provost and Executive Vice President	Eastern Michigan University
<i>Philomena V. Mantella</i>	Philomena V. Mantella	President	Grand Valley State University
<i>Maria C. Cimitile</i>	Maria C. Cimitile	Provost and Executive Vice President for Academic and Student Affairs	Grand Valley State University
<i>Chandrashekhar Joshi</i>	Chandrashekhar Joshi	Department Chair, Biological Sciences	Michigan Technological University
<i>David Hemmer</i>	David Hemmer	Dean, College of Sciences and Arts	Michigan Technological University

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<i>Jacqueline Huntoon</i>	Jacqueline Huntoon	Provost and Senior Vice President for Academic Affairs	Michigan Technological University
<i>Richard Koubek</i>	Richard Koubek	President	Michigan Technological University
<i>Dr. John Rebers</i>	Dr. John Rebers	Professor & Department Head Biology	Northern Michigan University
<i>Kerri D. Schuiling</i>	Kerri D. Schuiling	Provost & VPAA	Northern Michigan University
<i>Rob Winn</i>	Rob Winn	Dean College of Arts & Sciences	Northern Michigan University
<i>James P. Lentini, D.M.A.</i>	James P. Lentini, D.M.A.	Senior Vice President for Academic Affairs and Provost	Oakland University
<i>Catherine A. Davy</i>	Catherine A. Davy	Provost and Vice Chancellor for Academic Affairs	University of Michigan-Dearborn

MICHIGAN INDEPENDENT COLLEGES AND UNIVERSITIES

SIGNATURE	NAME	TITLE	INSTITUTION
<i>Gilda Gely, Ph.D.</i>	Gilda Gely, Ph.D.	Executive Vice President for Academics and Provost	Davenport University
<i>Richard J. Pappas, Ed.D.</i>	Richard J. Pappas, Ed.D.	President	Davenport University
<i>Fredi deYampert</i>	Fredi deYampert	VP, Academic Affairs	Finlandia University
<i>Maria Vaz</i>	Maria Vaz	Vice President for Academic Affairs/Provost	Lawrence Technological University
<i>Dr. Srinii Kambhampati</i>	Dr. Srinii Kambhampati	Dean of the College of Arts and Science	Lawrence Technological University

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<i>Dr. Brian Stogner</i>	Dr. Brian Stogner	President	Rochester University
<i>Dr. David Brackney</i>	Dr. David Brackney	Chair, Department of Science and Mathematics	Rochester University
<i>Dr. Remylin Bruder</i>	Dr. Remylin Bruder	Provost	Rochester University
<i>Ronald Delap</i>	Ronald Delap	Associate Vice President of Academic Affairs	Spring Arbor University
<i>Antoine M. Garibaldi, Ph.D.</i>	Antoine M. Garibaldi, Ph.D.	President	University of Detroit Mercy
<i>Katherine E Snyder, Ph.D.</i>	Katherine E Snyder, Ph.D.	Dean, College of Engineering and Science	University of Detroit Mercy
<i>Pamela Zarkowski, J.D., MPH</i>	Pamela Zarkowski, J.D., MPH	Provost and Vice President of Academic Affairs	University of Detroit Mercy

APPENDIX A:
Participating Community College MiTransfer Biology Pathway Worksheets



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Alpena Community College
Degree/Program	Biology
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 161	Gen. College Biology I	4
Organismal Biology	BIO 162	Gen. College Biology II	4
General Chemistry I	CEM 121	Gen. and Inorg. Chemistry I	4
General Chemistry II	CEM 122	Inorg. Chem & Quan. Analysis	4
Organic Chemistry I	CEM 221	Organic Chem I	4
Organic Chemistry II	CEM 222	Organic Chem II	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
American Government requirement	PLS 221 or 222; or HST 221 and 222	American Government and Politics or State and Local Government; US History I and US History II	MTA Social Science
Elective	MTH 131 or 223	Calculus I or Statistical Methods	5 or 4
Elective	PHY 121	College Physics I	4
Elective	PHY 122	College Physics II	4
Elective			1-2
		CC Only: Add remaining hours	14
TOTAL CREDITS			60



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Bay College
Degree/Program	AS-Biology
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

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The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL 112	Cells and Molecules	4
Organismal Biology	BIOL 110	Evolution and Diversity	4
General Chemistry I	CHEM 110	General Chemistry I	5
General Chemistry II	CHEM 112	General Chemistry II	5
Organic Chemistry I	CHEM 201	Organic Chemistry I	4
Organic Chemistry II	CHEM 202	Organic Chemistry II	4
TOTAL CREDITS			26

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Recommendation	MATH 210	Statistics	4
Program Electives	Choice	Choice	12
		CC Only: Add remaining hours	16
TOTAL CREDITS			60



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Delta College
Degree/Program	A.S. Biology
Credits Required	62

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 171	Integrated General Biology I	4
Organismal Biology	BIO 172W	Integrated General Biology II	4
General Chemistry I	CHM 111	General and Inorganic Chemistry I	5
General Chemistry II	CHM 112	General and Inorganic Chemistry II	5
Organic Chemistry I	CHM 210 and 210LW	Organic Chemistry I and Laboratory	5
Organic Chemistry II	CHM 220 and 220LW	Organic Chemistry II and Laboratory	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Lifelong Wellness (from list)			2
		CC Only: Add remaining hours	2
TOTAL CREDITS			62

DEGREE PROGRAM INFORMATION

Institution	Glen Oaks Community College
Degree/Program	Associate of Science/ Science
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 121	Gen Bio I	4
Organismal Biology	BIO 122	Gen Bio II	4
General Chemistry I	CHEM 133	General Chemistry I	4
General Chemistry II	CHEM 134	General Chemistry II	4
Organic Chemistry I	CHEM 210	Organic Chemistry I	4
Organic Chemistry II	CHEM 211	Organic Chemistry II	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
	MATH 161	Calculus I	4
Math and/or Science Electives	BIO, GEOL, GEOG, PHYS, and MATH prefix		8 or 9
		Remaining hours	
TOTAL CREDITS			60 or 61



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	GOGEBIC COMMUNITY COLLEGE
Degree/Program	Biological Sciences
Credits Required	64-66

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO101	Principles of Biology	4
Organismal Biology	BIO102	Biological Diversity	4
General Chemistry I	CHM151	General & Inorganic Chemistry	5
General Chemistry II	CHM152	Gen & Inorganic Chemistry II	5
Organic Chemistry I	CHM201	Organic Chemistry I	4
Organic Chemistry II	CHM202	Organic Chemistry II	4
TOTAL CREDITS			22

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement	MTH150	Calculus I	5
Program Requirement	ORI100	College Experience	1
Math/Science Electives			12-14
		CC Only: Add remaining hours	18-20
TOTAL CREDITS			64-66

DEGREE PROGRAM INFORMATION

Institution	Grand Rapids Community College
Degree/Program	Associate of Arts/Associate of Science
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BI 151	Introduction to Cells, Molecules, and Genes	4
Organismal Biology	BI 152	Biological Diversity	4
General Chemistry I	CHM 130 and CHM 131	General Chemistry I and General Chemistry I Lab	4 + 1
General Chemistry II	CHM 140 and CHM 141	General Chemistry II and General Chemistry II Lab	4 + 1
Organic Chemistry I	CHM 260 and CHM 261	Organic Chemistry I and Organic Chemistry I Lab	4 + 1
Organic Chemistry II	CHM 270 and CHM 271	Organic Chemistry II and Organic Chemistry II Lab	4 + 1
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
GRCC currently has a specific Pre-Biology program in its Catalog that may have additional coursework outlined based primarily on transfer institution requirements. However, besides MTA, GRCC does not have any additional degree requirements (such as government, wellness, etc).			
		CC Only: Add remaining hours	10
TOTAL CREDITS			60

DEGREE PROGRAM INFORMATION

Institution	Henry Ford College
Degree/Program	Associate in Science / Biology
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 152	Cells and Molecular Biology	4
Organismal Biology	BIO 150	Biology: Organisms, Genes, and Ecology	4
General Chemistry I	CHEM 141	Principles of General and Inorganic Chemistry I	5
General Chemistry II	CHEM 142	Principles of General and Inorganic Chemistry II	5
Organic Chemistry I	CHEM 241 AND CHEM 243	Organic Chemistry I AND Microscale Organic Chemistry Laboratory I	6
Organic Chemistry II	CHEM 242 AND 244	Organic Chemistry II AND Microscale Organic Chemistry Laboratory II	6
TOTAL CREDITS			30

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Computer Technology	Choose from list of approved courses		3
		CC Only: Add remaining hours	4
TOTAL CREDITS			7



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Jackson College
Degree/Program	Associate in Science
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 162	General Biology II	4
Organismal Biology	BIO 161	General Biology I	4
General Chemistry I	CEM 141	General Chemistry I	5
General Chemistry II	CEM 142	General Chemistry II	5
Organic Chemistry I	CEM 241	Organic Chemistry I	5
Organic Chemistry II	CEM 242	Organic Chemistry II	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Communication (GEO 2)	COM 231	Communication Fundamentals	3
Diversity (GEO 7)	Some MTA courses meet this req.	Varies	3
First Year Experience	SEM 140	Seminar in Life Pathways	3
		CC Only: Add remaining hours	
TOTAL CREDITS			60



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Kalamazoo Valley Community College
Degree/Program	Associate of Science (AS), Biological Sciences
Credits Required	62

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 101	Cellular Biology	4
Organismal Biology	BIO 104	Organismal Biology	4
General Chemistry I	CHM 120	General Chemistry I	4
General Chemistry II	CHM 130	General Chemistry II	4
Organic Chemistry I	CHM 220	Organic Chemistry I	5
Organic Chemistry II	CHM 230	Organic Chemistry II	5
TOTAL CREDITS			26

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Mathematics	MATH 160	Calculus I	5
Mathematics	MATH 220	Probability & Statistics	4
		CC Only: Add remaining hours	1
TOTAL CREDITS			62

DEGREE PROGRAM INFORMATION

Institution	Kellogg Community College
Degree/Program	Biology A.S.
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL 110	Principles of Biology: Cellular	4
Organismal Biology	BIOL 109	Principles of Biology: Organismal	4
General Chemistry I	CHEM 110	General Chemistry 1	4
General Chemistry II	CHEM 111	General Chemistry 2	4
Organic Chemistry I	CHEM 201	Organic Chemistry 1	4
Organic Chemistry II	CHEM 202	Organic Chemistry 2	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
First Year Seminar	FYS 101	First Year Seminar	1
Healthy Living	PEHL 140 or PSYC 201	Healthy Lifestyle Practices or Introduction to Psychology	2-3
GE-Required for graduation	COMM 101 or COMM 111 or ENGL 152	Foundations of Interpersonal Communication or Business and Technical Communication or Freshman Composition	3
GE-Required for graduation	ENGL 151	Freshman Composition	3
GE-Required for graduation	Creativity electives		6
GE-Required for graduation	Global Awareness electives		6
GE-Required for graduation	Electives		14-15
Service Learning Endorsement	N/A	N/A	N/A
CC Only: Add remaining hours			36
TOTAL CREDITS			60

DEGREE PROGRAM INFORMATION

Institution	Kirtland Community College
Degree/Program	Associate in Science and Arts
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 11700	Cell & Molecular Biology	4
Organismal Biology	BIO 11800	Evolution, Ecology, & Diversity	4
General Chemistry I	CHE 10101/CHE 10102	General Chemistry I & Lab	4/1.5
General Chemistry II	CHE 10201/CHE 10202	General Chemistry II & Lab	4/1.5
Organic Chemistry I	CHE 20101/CHE 20102	Organic Chemistry II & Lab	4/1.5
Organic Chemistry II	CHE 20201/CHE 20202	Organic Chemistry II & Lab	4/1.5
TOTAL CREDITS			30

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

Students can choose from these courses as possible electives until they reach a total of 60 credits.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
	ASA has room for open electives. Students may choose from a variety of classes until 60 credits is earned. Below are examples of recommended electives.		
Program Elective	BIO 10100	General Biology	4
Program Elective	BIO 10700	Essentials of Anatomy & Physiology	4
Program Elective	BIO 20100	General Zoology	4
Program Elective	BIO 21000	Microbiology	4
Program Elective	BIO 25000	Human Anatomy	4
Program Elective	BIO 25100	Human Physiology	4
Program Elective	CHE 10000	Chemical Science	4
		CC Only: Add remaining hours	Varies
TOTAL CREDITS			60



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Lake Michigan College
Degree/Program	Assoc. in Science/Biology
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL 111	Principles of Biology I	4
Organismal Biology	BIOL 112	Principles of Biology II	4
General Chemistry I	CHEM 111	General Chemistry I	4
General Chemistry II	CHEM 112	General Chemistry II	4
Organic Chemistry I	CHEM 203	Organic Chemistry I	4
Organic Chemistry II	CHEM 204	Organic Chemistry II	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Biology	BIOL 205	Human Anatomy	4
Physical Education	PHED 200, 212 or 214	Healthful Living, Health & Fitness, or Personal Health	1
	General Electives		12
		CC Only: Add remaining hours	17
		TOTAL CREDITS	60

DEGREE PROGRAM INFORMATION

Institution	Lansing Community College
Degree/Program	Biology AS
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL 127	Cell biology	4
Organismal Biology	BIOL 128	Organismal biology	4
General Chemistry I	CHEM 151/161	General Chemistry I	5
General Chemistry II	CHEM 152/162	General Chemistry II	4
Organic Chemistry I	CHEM 251	Organic Chemistry I	4
Organic Chemistry II	CHEM 252/272	Organic Chemistry II and lab	6
TOTAL CREDITS			27

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Elective from list (choose one)	BIOL 270	Human Genetics	3
	BIOL 275	Molecular Biology I	4
	BIOL 210	Natural Resource Conservation	4
	BIOL 260	Botany	4
	BIOL 265	Zoology	4
TOTAL CREDITS			60 or 61



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Macomb Community College
Degree/Program	Associate of Science – Biological Sciences
Credits Required	62

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL 1000	General Biology I	4
Organismal Biology	BIOL 1010	General Biology II	4
General Chemistry I	CHEM 1170	General Chemistry I	4
General Chemistry II	CHEM 1180	General Chemistry II	4
Organic Chemistry I	CHEM 2260	Organic Chemistry I	4
Organic Chemistry II	CHEM 2280	Organic Chemistry II	4
Organic Chemistry Lab	CHEM 2270	Organic Chemistry Lab	2
TOTAL CREDITS			26

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program	MATH 1760	Analytic Geometry & Calculus I	4
Program	BIOL 2710 OR BIOL 2400	Human Physiological Anatomy or General Microbiology	6 4
Program	PHYS 1180 AND PHYS 1190	College Physics I and II	4 each/8
Program	CHEM 1050	Intro to General Chemistry	4
		Remaining hours	14-16
TOTAL CREDITS			36



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Mid Michigan College
Degree/Program	Associates in Science
Credits Required	62

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO111	Fundamentals of Cellular and Molecular Biology	4
Organismal Biology	BIO112	Fundamentals of Evolution and Diversity	4
General Chemistry I	CHM111	General College Chemistry I	5
General Chemistry II	CHM112	General College Chemistry II	5
Organic Chemistry I	CHM245/255	Organic Chemistry and Lab I	5
Organic Chemistry II	CHM246/256	Organic Chemistry and Lab II	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
General Physics I	PHY015	Introductory College Physics I	5
General Physics II	PHY106	Introductory College Physics II	5
	ENG222, SPE101, or SPE257	Expository Writing and Research, Fundamentals of Communication, or Public Speaking	3
		CC Only: Add remaining hours	13
TOTAL CREDITS			62

DEGREE PROGRAM INFORMATION

Institution	Monroe County Community College
Degree/Program	Associate of Science/ Transfer Pathway- Biology
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL 151	Biological Sciences I	4
Organismal Biology	BIOL 153	Biological Sciences II	4
General Chemistry I	CHEM 151	General College Chemistry I	4
General Chemistry II	CHEM 152	General College Chemistry II	4
Organic Chemistry I	CHEM 251	Organic Chemistry I	4
Organic Chemistry II	CHEM 252	Organic Chemistry II	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
General Education	CIS 130	Introduction to Computer Information Systems	3
		Remaining hours	
TOTAL CREDITS			60



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Montcalm Community College
Degree/Program	MITransfer Pathway Biology Associate of Science
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL121	College Biology I	4
Organismal Biology	BIOL122	College Biology II	4
General Chemistry I	CHEM220	College Chemistry I	5
General Chemistry II	CHEM221	College Chemistry II	5
Organic Chemistry I	CHEM251	Organic Chemistry I	5
Organic Chemistry II	CHEM252	Organic Chemistry II	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Elective credits for a total of 60			
English Requirement	ENGL 100	Freshman English 1	3
MTA Math requirement	MATH 159	College Algebra	4
MTA Social Science requirement	POLI 240	American Political System	3
Communication Requirement	COMM 220 or 210	Interpersonal Communications or Speech	3
CC Only: Add remaining hours			
TOTAL CREDITS			60



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	Mott Community college
Degree/Program	Associates in Science/Biology
Credits Required	63 or 64

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	Biol 111	Fundamentals of Biology	4
Organismal Biology	Biol 112	Diversity of life	4
General Chemistry I	Chem 131	General Chemistry I	5
General Chemistry II	Chem 132	General Chemistry II	5
Organic Chemistry I	Chem 237	Organic Chemistry I	5
Organic Chemistry II	Chem 238	Organic Chemistry II	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
CC Only: Add remaining hours			
TOTAL CREDITS			

DEGREE PROGRAM INFORMATION

Institution	Muskegon Community College
Degree/Program	Associate in Science and Arts
Credits Required	62

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology (MTA Course)	BIOL 103	Introductory Biology I	4
Organismal Biology	BIOL 104	Introductory Biology II	4
General Chemistry I (MTA Course)	CHEM 101LEC and CHEM 100A	Gen and Inorganic Chem 1 and Lab	5
General Chemistry II	CHEM 102LEC and CHEM 102A	Gen and Inorganic Chem 2 and lab	5
Organic Chemistry I	CHEM 201E and CHEM 201F	Organic Chem 1 and Lab	5
Organic Chemistry II	CHEM 202F and CHEM 202G	Organic Chem 2 and Lab	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
General Education	CIS 110 or CIS 120A	Computer Concepts or Intro to Computer Information Systems	3
General Education	Physical Education	Selection of Courses	2
General Education	Selection of Courses	Selection of Courses	3
Electives	Selection of Courses	Selection of Courses	5
TOTAL CREDITS			13



BIOLOGY PROGRAM WORKSHEET

DEGREE PROGRAM INFORMATION

Institution	North Central Michigan College
Degree/Program	Associate of Science with a Concentration in Biology
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 151	General Biology I	4
Organismal Biology	BIO 152	General Biology II	4
General Chemistry I	CEM 121	Principles of Chemistry I	5
General Chemistry II	CEM 122	Principles of Chemistry II	5
Organic Chemistry I	CEM 231	Organic Chemistry I	5
Organic Chemistry II	CEM 232	Organic Chemistry II	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
		CC Only: Add remaining hours	2-10
TOTAL CREDITS			60



BIOLOGY MiTRANSFER PATHWAY

DEGREE PROGRAM INFORMATION

Institution	Northwestern Michigan College
Degree/Program	Associate in Science & Arts (ASA)/ Biology
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 115	Cell, Plant & Ecosystem Biology	4
Organismal Biology	BIO 116	Genetic, Evolution & Animal Biology	4
General Chemistry I	CHM 150	General Chemistry I	5
General Chemistry II	CHM 151	General Chemistry II	5
Organic Chemistry I	CHM 250	Organic Chemistry I	5
Organic Chemistry II	CHM 251	Organic Chemistry II	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
		Remaining hours	
TOTAL CREDITS			

DEGREE PROGRAM INFORMATION

Institution	Oakland Community College
Degree/Program	Associate in Science
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 1530	Molecular Biology	4
Organismal Biology	BIO 1560	Organismal Biology	4
General Chemistry I	CHE 1510	General Chemistry I	4
General Chemistry II	CHE 1520	General Chemistry II	4
Organic Chemistry I	CHE 2610	Organic Chemistry I	4
Organic Chemistry II	CHE 2620	Organic Chemistry II	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
		CC Only: Add remaining hours	14
TOTAL CREDITS			60

DEGREE PROGRAM INFORMATION

Institution	Schoolcraft College
Degree/Program	Associate in Science
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL 120	Principles of Biology 1	5
Organismal Biology	BIOL 130	Principles of Biology 2	5
General Chemistry I	CHEM 111	General Chemistry 1	4
General Chemistry II	CHEM 117	General Chemistry 2 and Qualitative Analysis	5
Organic Chemistry I	CHEM 213	Organic Chemistry 1	5
Organic Chemistry II	CHEM 214	Organic Chemistry 2	5
TOTAL CREDITS			29

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Select 7 additional credits from the MTA list			7
		CC Only: Add remaining hours	7
TOTAL CREDITS			60

DEGREE PROGRAM INFORMATION

Institution	Southwestern Michigan College
Degree/Program	A.S. Biology
Credits Required	63

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL 101	Gen. Biology I	5
Organismal Biology	BIOL 102	Gen. Biology II	5
General Chemistry I	CHEM 101	General Chemistry I	5
General Chemistry II	CHEM 102	General Chemistry II	5
Organic Chemistry I	CHEM 201	Organic Chem I	5
Organic Chemistry II	CHEM 202	Organic Chem II	5
TOTAL CREDITS			30

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Mathematics	MATH 130	Precalculus	5
Physics	PHYS 101	Intro Physics I	5
Physics	PHYS 102	Intro Physics II	5
CC Only: Add remaining hours			15
TOTAL CREDITS			63



BIOLOGY MiTRANSFER PATHWAY

DEGREE PROGRAM INFORMATION

Institution	St. Clair County Community College
Degree/Program	Associate in Science/ Biology
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 120	Cellular and Molecular Biology	4
Organismal Biology	BIO 121	Organismal Biology	4
General Chemistry I	CHM 111	Chemistry Theory and Principles with Analysis	5
General Chemistry II	CHM 112	Chemistry Theory and Principles with Analysis	5
Organic Chemistry I	CHM 215	Organic Chemistry I	5
Organic Chemistry II	CHM 216	Organic Chemistry II	5
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
		Remaining hours	2
TOTAL CREDITS			60

DEGREE PROGRAM INFORMATION

Institution	Washtenaw Community College
Degree/Program	Associate in Science in Math and Science – Biology Concentration
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 162	General Biology II Cells & Molecules	4
Organismal Biology	BIO 161	General Biology I Ecology and Evolution	4
General Chemistry I	CEM 111	General Chemistry I	4
General Chemistry II	CEM 122	General Chemistry II	4
Organic Chemistry I	CEM 211	Organic Chemistry I	4
Organic Chemistry II	CEM 222	Organic Chemistry II	4
TOTAL CREDITS			16

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement - Select one course from the following:	BIO 111, BIO 208, BIO 215, BIO 227, or BIO 237	Anatomy & Physiology – Normal Structure & Function Genetics Cell & Molecular Biology Biology of Animals Microbiology	5 Or 4
Open Electives			7 - 8
		CC Only: Add remaining hours	
TOTAL CREDITS			60

DEGREE PROGRAM INFORMATION

Institution	Wayne County Community College District
Degree/Program	Associate of Science
Credits Required	60

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 155	Introductory Biology	4
Organismal Biology			
General Chemistry I	CHM 136	General Chemistry I	4
General Chemistry II	CHM 145	General Chemistry II	4
Organic Chemistry I	CHM 250	Organic Chemistry I	4
Organic Chemistry II	CHM 252	Organic Chemistry II	4
TOTAL CREDITS			20

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
General Educations	Humanities	Dance, Philosophy, Music, Languages, MWS 102, Humanities, English 200 level	3
General Educations	Social Science	Economics, Geography, History, Psychology,	3
General Educations	Electives		4
		CC Only: Add remaining hours	
TOTAL CREDITS			60

DEGREE PROGRAM INFORMATION

Institution	West Shore Community College
Degree/Program	Associate of Science/ Biology
Credits Required	63

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 122	General Biology I	4
Organismal Biology	BIO 123	General Biology II	4
General Chemistry I	CHM 122	General Chemistry I	4
General Chemistry II	CHM 123	General Chemistry II	4
Organic Chemistry I	CHM 232	Organic Chemistry I	4
Organic Chemistry II	CHM 233	Organic Chemistry II	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are additional associate degree requirements that are not MTA or MiTransfer Pathways courses. They may not be accepted for transfer by universities participating in the agreement. If there are remaining hours, use the Remaining Degree Requirements in Appendix B identified by the university to which the student plans to transfer to select courses that meet bachelor's degree requirements.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Social Science/ Category C	Category C	Diverse Disciplines	3
Communications III/ Category C	SPE 101, 110, or 206	Principles of Public Speaking, Interpersonal Comm, Small Group Comm	3
Humanities & Fine Arts	Category C	Diverse Disciplines	3
AS	BIS 160, BIO 245	Desktop Apps, Genetics	3-4
		Remaining hours	
TOTAL CREDITS			

APPENDIX B:

Participating Four-Year College and University MiTransfer Biology Pathway Worksheets

Institution	Central Michigan University
Degree/Program	Biology
Credits Required	120

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether or not any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. Be aware that "double count" policies differ from institution to institution. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 112	Foundations of Cell Biology	4
Organismal Biology	BIO 111	Foundations of Evolution and Diversity	4
General Chemistry I	CHM 131	General Chemistry I	4
General Chemistry II	CHM 132	General Chemistry II	4
Organic Chemistry I	CHM 345	Organic Chemistry I	3
Organic Chemistry II	CHM 346	Organic Chemistry II	3
TOTAL CREDITS			22

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement	MTH 130	Pre-Calculus Mathematics	4
General Education	ENG 201	Intermediate Composition	3
		CC Only: Add remaining hours	
TOTAL CREDITS			7

DEGREE PROGRAM INFORMATION

Institution	Davenport University
Degree/Program	Bachelor of Science in Biological Laboratory Science
Credits Required	120

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOL110/BIOL110L	Foundations of Cell Biology/Lab	4
Organismal Biology	BIOL111/BIOL111L	Organisms and Populations/Lab	4
General Chemistry I	CHEM160/CHEM160L	General Chemistry I/Lab	4
General Chemistry II	CHEM161/CHEM161L	General Chemistry II/Lab	4
Organic Chemistry I	CHEM250/CHEM250L	Organic Chemistry I/Lab	6
Organic Chemistry II	CHEM255/CHEM255L	Organic Chemistry II/Lab	6
TOTAL CREDITS			28

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement	BIOL221/221L	Anatomy & Physiology I/Lab	4
Program Requirement	BIOL222/222L	Anatomy & Physiology II/Lab	4
General Education	MATH150	Pre-Calculus	4
Program Requirement	PHYS210/PHYS210L	Required Science Course	4
Program Requirement	PHYS220/PHYS220L	Required Science Course	4
TOTAL CREDITS			20

DEGREE PROGRAM INFORMATION

Institution	Eastern Michigan University
Degree/Program	Biology, Bachelor of Science
Credits Required	124 hours

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether or not any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. Be aware that "double count" policies differ from institution to institution. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the College Algebra pathway.

MITRANSFER PATHWAYS COURSES

Add the commonly agreed upon "pathways courses" which were identified at the MiTransfer Pathways Summit. If a course also fulfills an MTA distribution requirement, please list here but only count the hours in the MTA section.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 110/111	Introductory Biology I & Lab	3/2
Organismal Biology	BIO 120/121	Introductory Biology II & Lab	3/2
General Chemistry I	CHEM 121/122	General Chemistry I & Lab	3/1
General Chemistry II	CHEM 123/124	General Chemistry II & Lab	3/1
Organic Chemistry I	CHEM 371	Organic Chemistry I	3
Organic Chemistry II	CHEM 372/373	Organic Chemistry II & Lab	3/2
TOTAL CREDITS			26

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement (Concentration)	PHY 221	Mechanics, Sound and Heat	4
Program Requirement (Concentration)	PHY 222	Electricity and Light	4
Program Requirement (Concentration)	STAT 170	Elementary Statistics	3
		CC Only: Add remaining hours	
TOTAL CREDITS			11

DEGREE PROGRAM INFORMATION

Institution	Finlandia University
Degree/Program	Bachelor of Arts in Biology
Credits Required	120

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 111	Biology: Essentials for Life	4
Organismal Biology	BIOL 113	Biology: Diversity of Life	4
General Chemistry I	CHM 115	General Chemistry I	4
General Chemistry II	CHM 116	General Chemistry II	4
Organic Chemistry I	CHM 215	Organic Chemistry I	4
Organic Chemistry II	CHM 216	Organic Chemistry II	4
TOTAL CREDITS			20

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
General Education	REL or FNS	Any Religion or Finnish Studies Course	3
Program Requirement	BIO 171	Anatomy & Physiology I	4
Program Requirement	BIO 172	Anatomy & Physiology II	4
TOTAL CREDITS			11

Institution	Grand Valley State University
Degree/Program	BS and BA in Biology (all programs)
Credits Required	120

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether or not any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. Be aware that "double count" policies differ from institution to institution. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 120	General Biology I with Lab	4
Organismal Biology	BIO 121	General Biology II with Lab	4
General Chemistry I	CHM 115	Principles of Chemistry I w/Lab	4
General Chemistry II	CHM 116	Principles of Chemistry II w/Lab	5
Organic Chemistry I	CHM 241	*Organic Chemistry I	4
Organic Chemistry II	CHM 242	*Organic Chemistry II	4
TOTAL CREDITS			26

*GVSU Biology majors have two upper level chemistry sequences to choose from:

- CHM 231 (Introductory Organic Chemistry w/Lab) and CHM 232 (Introductory Biochemistry w/lab)
- CHM 241 and 242 (Organic Chemistry I and II) – for students interested in Pre-Medical, Pre-Vet, Pre-professional and Graduate School Programs

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hours
Minimum required prerequisite for chemistry and physics	MTH 122	**College Algebra	3
Minimum required prerequisite for PHY 220	MTH 123	**Trigonometry	3
Math Cognate Option	STA 215	Introductory Applied Statistics	3
Required/Core Course	BIO 215	Ecology w/Lab	4
Required/Core Course	BIO 210	Evolutionary Biology	3
Physics Option	PHY 220	***General Physics I w/lab	5

Physics Option	PHY 221	***General Physics II w/lab	5
TOTAL CREDITS			26

**Math course selection will depend on required Chemistry and Physics options:

- MTH 122 or MTH 125 or MTH 201 required for CHM 116
- MTH 122 or MTH 201 required for PHY 200
- MTH 122 (College Algebra) and MTH 123 (Trigonometry) (or placement test) required for PHY 220
- MTH 201 (Calculus I) required for PHY 230
- MTH 202 (Calculus II) required for PHY 231
- MTH 122 (College Algebra) and MTH 123 (Trigonometry) (or placement test) required for MTH 201 (Calculus I)

*** GVSU Biology majors have three Physics sequences to choose from:

- PHY 200 (Physics for the Life Sciences w/lab)
- PHY 220 and 221 (algebra-based Physics w/labs) – for students interested in Pre-Medical, Pre-Vet, Pre-professional and Graduate School Programs
- PHY 230 and 231 (calculus based Physics w/labs) – for students interested in some select Pre-medical and Pre-professional programs. Students should consult university websites for program admission standards.

DEGREE PROGRAM INFORMATION

Institution	Lawrence Technological University
Degree/Program	Bachelor of Science in Molecular & Cell Biology
Credits Required	123

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. More information about the MTA is available at www.mittransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 1213/BIO 1221	Biology 1/Lab	4
Organismal Biology	BIO 1223/BIO 1231	Biology 2/Lab	4
General Chemistry I	CHM 1213/BIO 1221	University Chemistry 1/Lab	4
General Chemistry II	CHM 1223/1231	University Chemistry 2/Lab	4
Organic Chemistry I	CHM 2313/2311	Organic Chemistry I/Lab	4
Organic Chemistry II	CHM 2323/2321	Organic Chemistry 2/Lab	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement	MCS 2124	Statistics	4
Program Requirement	SSC/PSY 1000	Social Science/Psychology Elective	3
Program Requirement	BIO 2313/2321	Microbiology/Lab	4
Program Requirement	MCS 1414	Calculus 1	4
Program Requirement	PHY 2213/1221	College Physics I/Lab	4
Program Requirement	PHY 2223/1221	College Physics II/Lab	4
TOTAL CREDITS			23

Institution	Michigan Technological University
Degree/Program	Bachelor of Science in Biological Sciences (All concentrations: General Biology, Ecology, & Pre-Professional)
Credits Required	128

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether or not any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. Be aware that "double count" policies differ from institution to institution. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Organismal Biology	BL 1010	General Biology I	4
Cell/Molecular Biology	BL 1020	General Biology II	4
General Chemistry I	CH 1150	University Chemistry I	3
	CH 1151	University Chemistry Lab I	1
General Chemistry II	CH 1160	University Chemistry II	3
	CH 1161	University Chemistry Lab II	1
Organic Chemistry I	CH 2410	Organic Chemistry I	3
	CH 2411	Organic Chemistry Lab I	1
Organic Chemistry II	CH 2420	Organic Chemistry II	3
	CH 2421	Organic Chemistry Lab II	2
TOTAL CREDITS			25

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement (All)	PH 1110 (Lecture) and PH 1111 (Lab)	College Physics I and	3
		College Physics Lab I	1
Program Requirement (All)	PH 1210 (Lecture) and PH 1200 (Lab)	College Physics II and	3
		Physics by Inquiry II (Lab)	1
Program Requirement (All)	MA1135	Calculus for Life Sciences	4
CC Only: Add remaining hours			
TOTAL CREDITS			12

Institution	Northern Michigan University
Degree/Program	Biology (with concentrations in Botany, Ecology, General Biology, Microbiology, Physiology, or Zoology)
Credits Required	120

MICHIGAN TRANSFER AGREEMENT (MTA)

The MiTransfer Pathways builds on the Michigan Transfer Agreement (MTA). The MTA allows transfer students to select designated courses to complete a minimum of 30 credit hours fulfilling MTA distribution requirements. Students following MiTransfer Pathway agreements should complete the MTA in accordance with the sending institutions' course designations and consider whether or not any recommended MiTransfer Pathways major-specific courses will "double count" to fulfill MTA distribution requirements in planning their transfer. Be aware that "double count" policies differ from institution to institution. More information about the MTA is available at www.mitransfer.org.

The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BI 111	Introductory Biology - Principles	4
Organismal Biology	BI 112	Introductory Biology – Diversity	4
General Chemistry I	CH 111	General Chemistry I	5
General Chemistry II	CH 112	General Chemistry II	5
Organic Chemistry I	CH 315/CH 317 (lecture/lab) or CH 220	Organic Chemistry I Intro to Organic Chemistry	4/ 5
Organic Chemistry II	CH 325/CH 327 (lecture/lab): required for Botany, Microbiology, Physiology & Zoology concentrations	Organic Chemistry II	4
TOTAL CREDITS			26-27

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program requirement	PH 201	College Physics I	5
Program requirement	PH 202	College Physics II	5
Many students take physics in their junior or senior year, some take physics in their first two years.			
Only 1 semester of physics is required for students with Ecology or General Biology concentrations.			
		CC Only: Add remaining hours	
TOTAL CREDITS			10

Institution	Oakland University
Degree/Program	Biology BA or BS
Credits Required	124 total credits

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The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 1200 + BIO 1201	Biology I + Biology Lab	5
Organismal Biology	BIO 1300	Biology II	4
General Chemistry I	CHM 1440 + 1470	General Chemistry I + lab	5
General Chemistry II	CHM 1450 + 1480	General Chemistry II + lab	5
Organic Chemistry I	CHM 2340	Organic Chemistry I	4
Organic Chemistry II (B.S. Only)	CHM 2350	Organic Chemistry II	4
TOTAL CREDITS			27

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement	STA 2220	Introduction to Statistics	4
Program Requirement	MTH 1441	Pre-calculus	4
Program Requirement (B.S. Only)	MTH 1554	Calculus I	4
Program Requirement	PHY (1010 or 1510) + 1100	(Gen or Intro) Physics I + Lab	5
Program Requirement	PHY (1020 or 1520) + 1110	(Gen or Intro) Physics II + Lab	5
BIO elective	BIO 3520	Intro to Human Microbiology	4
BIO elective	BIO 2100, 2101, and 2600	Human Anatomy & Physiology	9
CC Only: Add remaining hours			
TOTAL CREDITS			35

DEGREE PROGRAM INFORMATION

Institution	Rochester University
Degree/Program	Bachelor of Science in Biology
Credits Required	120

MICHIGAN TRANSFER AGREEMENT (MTA)

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The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 1013/1011 Lab or BIO 1014	Biological Science I w/Lab	4
Organismal Biology	BIO 1024	Biological Science II w/Lab	4
General Chemistry I	CHE 1514	College Chemistry I I w/Lab	4
General Chemistry II	CHE 1524	College Chemistry II w/Lab	4
Organic Chemistry I	CHE 2514	Organic Chemistry I	4
Organic Chemistry II	CHE 2524	Organic Chemistry II	4
TOTAL CREDITS			24

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement	BIO 2114	Human A and P I w/ Lab	4
Program Requirement	BIO 2124	Human A and P II w/ Lab	4
Program Requirement	BIO 3323/BIO 3321 Lab	Microbiology and Micro Lab	4
Program Requirement	PHS 2014	General Physics I	4
Program Requirement	PHS 2024	General Physics II	4
Program Requirement	MAT 1334	Pre-Calculus	4
TOTAL CREDITS			24

DEGREE PROGRAM INFORMATION

Institution	Spring Arbor University
Degree/Program	BA/BS: Biology, Environmental Biology, Biology Pre-med, Biology Secondary Teaching Certification
Credits Required	120

MICHIGAN TRANSFER AGREEMENT (MTA)

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The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 112	Introduction to Biology II	4
Organismal Biology	BIO 111	Introduction to Biology I	4
General Chemistry I	CHE 111	General Chemistry I	4
General Chemistry II	CHE 112	General Chemistry II	4
Organic Chemistry I	CHE 201	Organic Chemistry I	5
Organic Chemistry II	CHE 202	Organic Chemistry II	5
TOTAL CREDITS			26

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement	HES/MAT/SWK/PSY 351	Statistics	3
Program Requirement	BIO 352	Microbiology	4
Program Requirement	BIO 263	Human Anat. And Physiol.	4
Program Requirement	BIO 281 or 362	Env. Science or Prin. Ecology	4
Program Requirement	BIO 206 or 321	Genes and Speciation or Parasitology	4
Program Requirement	BIO 330 or 345	Plant Organismal Biology or Cell/Mole.	4
TOTAL CREDITS			23

DEGREE PROGRAM INFORMATION

Institution	University of Detroit Mercy
Degree/Program	Bachelor of Science in Biology
Credits Required	126

MICHIGAN TRANSFER AGREEMENT (MTA)

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The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MiTRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIO 1200, BIO 1210	General Biology I/Lab	5
Organismal Biology	BIO 1220, BIO 1230	General Biology II/Lab	5
General Chemistry I	CHM 1070/CHM 1100	General Chemistry I/Lab	4
General Chemistry II	CHM 1080/CHM 1120	General Chemistry II/Lab	4
Organic Chemistry I	CHM 2270/CHM 2250	Organic Chemistry I/Lab	4
Organic Chemistry II	CHM 2290/CHM 2260	Organic Chemistry II/Lab	4
TOTAL CREDITS			26

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Program Requirement	PHY 1300, PHY 1310	Physics I/Lab	4
Program Requirement	PHY 1320, PHY 1330	Physics II/Lab	4
Program Requirement	MTH 1400	Elementary Functions	3
Program Requirement	BIO 2900 or STA 2250	Biostatistics Statistics	3
TOTAL CREDITS			14

Institution	University of Michigan-Dearborn
Degree/Program	BS/Biology
Credits Required	120

MICHIGAN TRANSFER AGREEMENT (MTA)

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The MTA Mathematics distribution area allows students to complete one of three math pathways. The Biology MiTransfer Pathways faculty recommended that students complete a course in the Calculus pathway.

MITRANSFER PATHWAYS COURSES

These courses are commonly agreed upon for transfer in this program around the state among participating institutions.

Pathway Course	Subject/ Course Number	Course Title	Credit Hrs
Cell/Molecular Biology	BIOLOGY 140/140L	Intro Molec & Cellular Biology	4
Organismal Biology	BIOLOGY 130/130L	Intro Org & Environ Biology	4
General Chemistry I	CHEMISTRY 134/134L	General Chemistry IA	4
General Chemistry II	CHEMISTRY 136/136L	General Chemistry IIA	4
Organic Chemistry I	CHEMISTRY 225	Organic Chemistry I	3
Organic Chemistry II	CHEMISTRY 226	Organic Chemistry II	3
TOTAL CREDITS			22

REMAINING DEGREE REQUIREMENTS

These are required, recommended, or optional courses that transfer students could complete at a community college to fulfill degree requirements at the university/ receiving institution.

General Education or Program Requirement	Subject/ Course Number	Course Title	Credit Hrs
Foreign Language	Foreign Language 101	Ancient Greek, Arabic, Armenian, French, German, Latin, Spanish, Chinese	4
Foreign Language	Foreign Language 102	Ancient Greek, Arabic, Armenian, French, German, Latin, Spanish, Chinese	4
Pre-Major	Physics 125/125L or Physics 150/150L	Introductory Physics I or General Physics I	4
Pre-Major	Physics 126/126L or Physics 151/151L	Introductory Physics II or General Physics II	4
Pre-Major	Math 116	Calculus II	4
CC Only: Add remaining hours			
TOTAL CREDITS			20

APPENDIX C:
MiTransfer Biology Pathway Course Equivalencies

Find live versions of each of these reports in the secure user area at www.mittransfer.org.

BIO MiTransfer Pathway Biology I Cell/Molecular FINAL	Central Michigan University	Eastern Michigan University	Eastern Michigan University	Grand Valley State University	Michigan Technological University	Northern Michigan University	Oakland University	Oakland University	University of Michigan-Dearborn	Davenport University	Davenport University	Finlandia University	Lawrence Technological University	Lawrence Technological University	Rochester University	Spring Arbor University	University of Detroit Mercy	University of Detroit Mercy	
By Receiving Institution	BIO 112	BIO 110	BIO 111	BIO 120	BL 1010	BI 111	BIO 1200	BIO 1201	BIOL 130	BIOL 110	BIOL 110L	BIO 111	BIO 1213	BIO 1221	BIO 1014	BIO 112	BIO 1200	BIO 1210	
Alpena Community College	BIO 161	BIO 161	BIO 161	BIO 161 BIO 162 BIO 210 BIO 211	BIO 162	BIO 161	BIO 161 BIO 162 BIO 161	BIO 162	BIO 162	BIO 114 BIO 161	BIO 114 BIO 161	BIO 150	BIO 161	BIO 161	BIO 161	BIO 161	BIO 161	BIO 161	
Bay de Noc Community College	BIOL 112	BIOL 112	BIOL 112	BI 110 BI 112 BI 220 BI 200 BIOL 112 BIOL 200 BIOL 220	BIOL 110	BI 112 BI 200 BIOL 112 BIOL 110 BIOL 200	BIOL 110 BIOL 112	BIOL 110 BIOL 112	BIOL 110	BIOL 104	BIOL 104	BIOL 112	BIOL 112	BIOL 112	BIOL 112	BIOL 112	BIOL 112	BIOL 112	BIOL 112
Delta College	BIO 171	BIO 171	BIO 171	BIO 111 BIO 111H BIO 130 BIO 171 BIOL 101 BIOL 102 BIOL 104 BIOL 103	BIO 172W	BIO 171	BIO 171 BIO 172 BIO 171	BIO 172 BIO 171	BIO 172	BIO 111W BIO 130W	BIO 111W BIO 130W	BIO 111	BIO 171	BIO 171	BIO 171	BIO 171	BIO 171	BIO 171	
Glen Oaks Community College	BIO 121	BIO 121 BIO 122	BIO 121 BIO 122	BIO 121 BIO 121 BIO 121 NSB 121	BIO 122	BIO 121 NSB 121	BIO 121 NSB 121 NSB 122 BIO 122	NSB 121 NSB 122 BIO 121	BIO 122	BIO 121	BIO 121	NSB 121	BIO 121	BIO 121	BIO 121	BIO 121	BIO 121	BIO 121 NSB 121	
Gogebic Community College	BIO 101	See Appendix D	See Appendix D	BIO 101 BIO 101	BIO 102	BIO 101	BIO 101 BIO 101 BIO 102	BIO 101 BIO 102	BIO 102	BIO 101	BIO 101	BIO 101	BIO 101	BIO 101 bio 102	BIO 101	BIO 101	BIO 101	BIO 101	
Grand Rapids Community College	BI 151	BI 151	BI 151	BI 151 BI 151 BI 151	BI 152	BI 151 BI 151	BI 151 BI 151	BI 151	BI 152	BI 151	BI 151	BI 101	BI 151	BI 151	BI 151	BI 151	BI 151	BI 151	
Henry Ford College	BIO 152	BIO 152	BIO 152	BIO 131 BIO 152 BIO 150	BIO 150	BIO 152	BIO 152 BIO 150 BIO 152	BIO 150 BIO 152	BIO 150 BIO 141 BIO 143	BIO 131 BIO 152	BIO 131 BIO 152	BIO 152	BIO 131	BIO 131	BIO 152	BIO 152	BIO 152	BIO 152	
Jackson College	BIO 162	BIO 162	BIO 162	BIO 151 BIO 152 BIO 131 BIO 131 BIO 162	BIO 161	BIO 131 BIO 162 BIO 232	BIO 131 BIO 162 BIO 161 BIO 162	BIO 161 BIO 162	BIO 161	BIO 162	BIO 162	BIO 131	BIO 162	BIO 162	BIO 131 BIO 161	BIO 162	BIO 131 BIO 162	BIO 131 BIO 162	
Kalamazoo Valley Community College	BIO 101	BIO 101	BIO 101	BIO 101	BIO 104	BIO 101	BIO 101 BIO 104	BIO 101 BIO 104	BIO 104	BIO 101	BIO 101	BIO 101	BIO 101	BIO 101	BIO 101	BIO 101	BIO 101	BIO 101	
Kellogg Community College	BIOL 110	BIOL 110	BIOL 110	BIOL 110 BIOL 110	BIOL 109	BIOL 110 BIOL 111	BIOL 110 BIOL 109 BIOL 110	BIOL 109 BIOL 110	BIOL 109	BIOL 110	BIOL 110	BIOL 110	BIOL 110	BIOL 110	BIOL 110	BIOL 110	BIOL 109	BIOL 109	

Kirtland Community College	BIO 1170 0	BIO 1010 BIO 1170 BIO 1180	BIO 1010 BIO 1170 BIO 1180	BIO 1010 BIO 1170 BIO 201 BIO 202 BIO 2010 BIO 2020	BIO 118	BIO 1170 BIO 2010 BIO 2020	BIO 1170 BIO 1180 BIO 1170	BIO 1180 BIO 1170	BIO 1170 0	BIO 1010 0	BIO 1010 0	BIO 1010 0	BIO 1010 0	BIO 1010 0	BIO 1170 0	BIO 1170 0	BIO 1010 BIO 1170	BIO 1010 BIO 1170
Lake Michigan College	BIOL 111	BIOL 111 HONR 111	BIOL 111 HONR 111	BIOL 103 BIOL 101 BIOL 102 BIOL 111 HONR 111	BIOL 112	BIOL 112 BIOL 111 BIOL 112 HONR 111 HONR 112	BIOL 111 HONR 111	BIOL 112 BIOL 111	BIOL 112	BIOL 101 BIOL 111 HONR 101 HONR 111	BIOL 101 BIOL 111 HONR 101 HONR 111	BIOL 111	biol 111	biol 111	BIOL 101	BIOL 111	BIOL 111	BIOL 111
Lansing Community College	BIOL 127	BIOL 127 BIOL 128	BIOL 127 BIOL 128	BIO 109 BIO 108 BIO 107 BIOL 121 BIOL 127 BIOL 128 BIOL 260 BIOL 265	BIOL 128	BIOL 127	BIOL 127 BIOL 127 BIOL 128	BIOL 127 BIOL 128	BIOL 128	BIOL 121 BIOL 127	BIOL 121 BIOL 127	BIOL 127	BIOL 121	BIOL 121	BIOL 127	BIOL 127	BIOL 127	BIOL 127
Macomb Community College	BIOL 1000	BIOL 1000	BIOL 1000	BIO 100 BIO 110 BIO 120 BIOL 1000	BIOL 1010	BIOL 1000	BIO 100 BIOL 1000 BIOL 1010 BIO 101	BIOL 1010 BIOL 1000 BIO 101 BIO 100	BIO 101 BIOL 1010	BIOL 1000	BIOL 1000	BIOL 1000	BIOL 1000	BIOL 1000	BIOL 1000	BIOL 1000	BIO 100 BIOL 1000	BIO 100 BIOL 1000
Mid Michigan College	BIO 111	BIO 111 BIO 112	BIO 111 BIO 112	BIO 101 BIO 111	BIO 112	BIO 111	BIO 111 BIO 112	BIO 112 BIO 111	BIO 112	BIO 101 BIO 111	BIO 101 BIO 111	BIO 101	BIO 111	BIO 111	BIO 111	BIO 111	BIO 101 BIO 111	BIO 101 BIO 111
Monroe County Community College	BIOL 151	BIOL 151	BIOL 151	BIOL 151 BIOL 152	BIOL 153	BIOL 151	BIOL 151 BIOL 153	BIOL 151 BIOL 153	BIOL 153 BIOL 252 BIOL 251	BIOL 151	BIOL 151	BIOL 151	BIOL 151	BIOL 151	BIOL 151	BIOL 151	BIOL 151	BIOL 151
Montcalm Community College	BIOL 121	BIOL 121	BIOL 121	BIOL 110 BIOL 121 BIOL 122 NS 110 NS 115 NS 121 NS 122	BIOL 122	BIOL 121	BIOL 121 BIOL 122	BIOL 121 BIOL 122	BIOL 100 BIOL 121	BIOL 100 BIOL 121	BIOL 100 BIOL 121	BIOL 121	BIOL 121	BIOL 121	BIOL 121	BIOL 121	BIOL 121	BIOL 121
Mott Community College	BIOL 111	BIOL 111	BIOL 111	BIOL 111	BIOL 112	BIOL 111	BIOL 111 BIOL 125 BIOL 126 BIOL 111	BIOL 125 BIOL 126 BIOL 111	BIOL 125 BIOL 126	BIOL 111	BIOL 111	BIOL 107 BIOL 111	BIOL 111	BIOL 111L	BIOL 111/ 111L	BIOL 112	BIOL 111	BIOL 111
Muskegon Community College	BIOL 104	See Appendix D	See Appendix D	BIOL 103 BIOL 10H BIOL 10G BIOL 10F BIOL 10E BIOL 10D BIOL 10C BIOL 10B BIOL 10A	BIOL 110 BIOL 104L &L	BIOL 103 BIOL 10D	BIOL 103 BIOL 104 BIOL 10A BIOL 10C BIOL 10B BIOL 10C BIOL 10H BIOL 10B BIOL 10D	BIOL 104 BIOL 103	BIOL 103 BIOL 103	BIOL 103	BIOL 103	BIOL 103	BIOL 103	BIOL 103	BIOL 103L &L	BIOL 103L &L	BIOL 103	BIOL 103

North Central Michigan College	BIO 151	BIO 151	BIO 151	BIO 151 BIO 152	BIO 152	BIO 151	BIO 151 BIO 152 BIO 151	BIO 152 BIO 151	BIO 152	BIO 101 BIO 151	BIO 101 BIO 151	BIO 151	BIO 151	BIO 151	BIO 151	BIO 151	BIO 151	BIO 151
Northwestern Michigan College	BIO 115 BIO 115L	BIO 115	BIO 115L	BIO 115L BIO 115 SC 111 SC 112 SC 113	BIO 116	BIO 115	BIO 115 BIO 115 BIO 116	BIO 115 BIO 116	BIO 115 BIO 116	BIO 115	BIO 115	BIO 115 BIO 115L	BIO 110 BIO 110L BIO 115 BIO 115L	BIO 110 BIO 110L BIO 115 BIO 115L	BIO 115	BIO 115	BIO 115 BIO 115L	BIO 115 BIO 115L
Oakland Community College	BIO 1530 BIO 1530	BIO 1530	BIO 1530	BIO 153 BIO 1530 BIO 1530 BIO 1530	BIO 1560	BIO 1530	BIO 1530 1560 BIO 1530	BIO 1560 BIO 1530	BIO 155 BIO 154	BIO 1511 BIO 1530	BIO 1511 BIO 1530	BIO 1530	BIO 1530	BIO 1530	BIO 1530	BIO 1530	BIO 1530	BIO 1530
Schoolcraft College	BIOL 120	BIOL 120	BIOL 120	BI 110 BIOL 101 BIOL 101 BIOL 102 BIOL 120 BIOL 120 BIOL 131 BIOL 132	BIOL 130	BIOL 120	BIOL 120 BIOL 120 BIOL 130	BIOL 102 BIOL 130	BIOL 102 BIOL 130	BIOL 101 BIOL 120	BIOL 101 BIOL 120	BIOL 101 BIOL 120		BIOL 120	BIOL 120	BIOL 120	BIOL 120	BIOL 120
Southwestern Michigan College	BIOL 101	BIOL 101	BIOL 101	BIOL 102 BIOL 101 BISC 111 BIOL 212 BIOL 211	BIOL 102	BIOL 101	BIOL 101 BIOL 102 BIOL 101	BIOL 102 BIOL 101	BIOL 101	BIOL 101 BISC 111	BIOL 101 BISC 111		BIOL 101	BIOL 101	BIOL 101	BIOL 101	BIOL 101	BIOL 101
St. Clair County Community College	BIO 120	See Appendix D	See Appendix D	BIO 100 BIO 120	BIO 121	BIO 250	BIO 100 BIO 120 BIO 121	BIO 121 BIO 120 BIO 100 BIO 100	BIO 120	BIO 100 BIO 101	BIO 100 BIO 101	BIO 120	BIO 100 BIO 150	BIO 150	BIO 100/ 110	BIO 120	BIO 100 BIO 120	BIO 100 BIO 120
Washtenaw Community College	BIO 162	BIO 162	BIO 162	BIO 101 BIO 103 BIO 128 BIO 127 BIO 162 BIO 228 BIO 227	BIO 161	BIO 162	BIO 162 BIO 161 BIO 162	BIO 161 BIO 162	BIO 103 BIO 161 BIO 228 BIO 227	BIO 101 BIO 162	BIO 101 BIO 162	BIO 101 BIO 102	BIO 102 BIO 162	BIO 102 BIO 162		BIO 162	BIO 162	BIO 101 BIO 161
Wayne County Community College District	BIO 155 BIO 165 BIO 175	See Appendix D	See Appendix D	BIO 165 BIO 175 BIO 105 BIO 110 BIO 111 BIO 155	See Appendix D	BIO 155	BIO 155 BIO 165 BIO 175	BIO 155 BIO 165 BIO 175	BIO 175 BIO 165	BIO 155	BIO 155	BIO 165	BIO 155	BIO 155	BIO 155	BIO 155	BIO 175/ 165	BIO 110 BIO 155
West Shore Community College	BIO 123	BIO 123	BIO 123	BIO 122 MBIO 122	BIO 123	BIO 123	BIO 122 BIO 123	BIO 123 BIO 122	BIO 122	BIO 122	BIO 122	MBIO 122	BIO 122	BIO 122	BIO 122	BIO 122	BIO 123	BIO 122 MBIO 122

BIO MiTransfer Pathway Biology II Organismal FINAL By Receiving Institution	Central Michigan University	Eastern Michigan University	Eastern Michigan University	Grand Valley State University	Michigan Technological University	Northern Michigan University	Oakland University	University of Michigan-Dearborn	Davenport University	Davenport University	Finlandia University	Lawrence Technological University	Lawrence Technological University	Rochester University	Spring Arbor University	University of Detroit Mercy	University of Detroit Mercy	
	BIO 111	BIO 120	BIO 121	BIO 121	BL 1020	BI 112	BIO 1300	BIOL 140	BIOL 111	BIOL 111L	BIO 113	BIO 1223	BIO 1231	BIO 1024	BIO 111	BIO 1220	BIO 1230	
Alpena Community College	BIO 162	BIO 162	BIO 162	BIO 161 BIO 162 BIO 211 BIO 210	BIO 161	BIO 162	BIO 162 BIO 163 BIO 161	BIO 161 BIO 217	BIO 162	BIO 162	BIO 162	BIO 162	BIO 162	BIO 162	BIO 162	BIO 162	BIO 162	
Bay de Noc Community College	BIOL 110	BIOL 110 BIOL 202	BIOL 110 BIOL 202	BI 110 BI 220 BI 200 BIOL 110 BIOL 200 BIOL 220	BIOL 112	BI 110 BI 220 BIOL 112 BIOL 110 BIOL 220	BIOL 110 BIOL 112	BIOL 112	BIOL 110	BIOL 110	BIOL 110	BIOL 110	BIOL 110	BIOL 110	BIOL 110	See Appendix D	See Appendix D	
Delta College	BIO 172W	BIO 172W	BIO 172W	BIO 172	BIO 171	BIO 172	BIO 172 BIO 171	BIO 171	BIO 172W	BIO 172W	BIO 171	bio 172w	BIO 172W	BIO 172W	BIO 172	BIO 172	BIO 172	
Glen Oaks Community College	BIO 122	See Appendix D	See Appendix D	BIO 122 BIO 122 NSB 122	BIO 121	BIO 122	BIO 122 NSB 121 BIO 121	BIO 121	BIO 122	BIO 122	NSB 122	BIO 122	BIO 122	BIO 122	BIO 122	BIO 122	BIO 122 NSB 122	BIO 122 NSB 122
Gogebic Community College	BIO 102	See Appendix D	See Appendix D	BIO 102 BIO 102	BIO 101	BIO 102	BIO 102 BIO 101	BIO 101	BIO 102	BIO 102	BIO 102	bio 102	BIO 102	BIO 102	BIO 102	BIO 102	BIO 102	BIO 102
Grand Rapids Community College	BI 152	BI 152	BI 152	BI 152	BI 151	BI 152	BI 152	BI 151	BI 152	BI 152	BI 152	BI 152	BI 152	BI 152	BI 152	BI 152	BI 152	BI 152
Henry Ford College	BIO 150	BIO 150	BIO 150	BIO 143 BIO 141 BIO 152 BIO 150	BIO 152	BIO 150	BIO 150 BIO 152	BIO 152	BIO 130	BIO 130	BIO 150	BIO 151	BIO 151	BIO 150	BIO 150	BIO 150	BIO 150	
Jackson College	BIO 161	BIO 161 BIO 231 BIO 232	BIO 161 BIO 231 BIO 232	BIO 151 BIO 152 BIO 131 BIO 161 BIO 231 BIO 232	BIO 162	BIO 161 BIO 231	BIO 161 BIO 161 BIO 162	BIO 162 BIOL 162	BIO 161	BIO 161	BIO 161	bio 161	bio 161	BIO 162	BIO 161	BIO 152 BIO 161 BIO 232	BIO 152 BIO 161 BIO 232	
Kalamazoo Valley Community College	BIO 104	BIO 104	BIO 104	BIO 103 BIO 102 BIO 104	BIO 101	BIO 104	BIO 104 BIO 101 BIO 104	BIO 101	BIO 104	BIO 104	BIO 104	BIO 104	BIO 104	BIO 104	BIO 102	BIO 104	BIO 104	
Kellogg Community College	BIOL 109	BIOL 109	BIOL 109	BIOL 109 BIOL 111 BIOL 112	BIOL 110	BIOL 109 BIOL 112	BIOL 109 BIOL 112 BIOL 110	BIOL 110	BIOL 109	BIOL 109	BIOL 109	BIOL 110	BIOL 110	BIOL 109	BIOL 109	BIOL 110	BIOL 110	
Kirtland Community College	BIO 1010 BIO 1180	BIO 1170 BIO 1180	BIO 1170 BIO 1180	BIO 1180 BIO 201 BIO 202 BIO 2010 BIO 2020	BIO 117	BIO 1180 BIO 2010 BIO 2020	BIO 1180 BIO 1180	BIO 1180 0	BIO 1180 0	BIO 1180 0	BIO 1010 0	bio 1180 0	bio 1180 0	BIO 1010 0	BIO 1180 0	See Appendix D	See Appendix D	

Lake Michigan College	BIOL 112	BIOL 112 HONR 112	BIOL 112 HONR 112	BIOL 103 BIOL 101 BIOL 102 BIOL 112 HONR 112	BIOL 111	BIOL 112 BIOL 111 HONR 112 HONR 111	BIOL 112 HONR 112 BIOL 112 BIOL 111	BIOL 111	BIOL 112 HONR 112	BIOL 112 HONR 112	BIOL 112	biol 112	biol 112	BIOL 112	BIOL 112	BIOL 112	BIOL 112
Lansing Community College	BIOL 128	BIOL 127 BIOL 128 BIOL 128 BIOL 260 BIOL 265	BIOL 127 BIOL 128 BIOL 128 BIOL 260 BIOL 265	BIO 109 BIO 108 BIO 107 BIOL 128 BIOL 127 BIOL 260 BIOL 265	BIOL 127	BIOL 128	BIOL 128 BIOL 127 BIOL 128	BIOL 127	BIOL 128	BIOL 128	BIOL 128	BIOL 128	BIOL 128	BIOL 128	BIOL 128	BIOL 128	BIOL 128
Macomb Community College	BIOL 1010	BIOL 1010	BIOL 1010	BIO 101 BIO 110 BIO 120 BIOL 1010	BIOL 1000	BIOL 1010	BIO 101 BIOL 1010 BIOL 1000 BIO 100	BIO 100 BIOL 1000	BIOL 1010	BIOL 1010	BIOL 1010	BIOL 1010	BIOL 1010	BIOL 1010	BIOL 1010	BIO 101 BIOL 1010	BIO 101 BIOL 1010
Mid Michigan College	BIO 112	BIO 111 BIO 112	BIO 111 BIO 112	BIO 112 BIO 203 BIO 201	BIO 101 BIO 111	BIO 112	BIO 112 BIO 112 BIO 111	BIO 111	BIO 112	BIO 112	BIO 112	BIO 112	BIO 112	BIO 112 BIO 203	BIO 112	See Appendix D	See Appendix D
Monroe County Community College	BIOL 153	BIOL 153	BIOL 153	BIOL 153	BIOL 151	BIOL 153	BIOL 153 BIOL 151	BIOL 151	BIOL 153	BIOL 153	BIOL 153	BIOL 153	BIOL 153	BIOL 153	BIOL 153	BIOL 153	BIOL 153
Montcalm Community College	BIOL 122	BIOL 122	BIOL 122	BIOL 115 BIOL 110 BIOL 121 BIOL 122 NS 115 NS 110 NS 122 NS 121	BIOL 121	BIOL 122	BIOL 122 BIOL 121 BIOL 122 BIOL 121 BIOL 122	BIOL 121 BIOL 122	BIOL 122	BIOL 122	BIOL 122	BIOL 122	BIOL 122	BIOL 122	BIOL 122	BIOL 122	BIOL 122
Mott Community College	BIOL 112	See Appendix D	See Appendix D	BIOL 126 BIOL 125	BIOL 111	BIOL 126 BIOL 125	BIOL 126 BIOL 125 BIOL 126 BIOL 111	BIOL 111	BIOL 107	BIOL 107	BIOL 107	biol 125 biol 125L biol 126 bio l 126L	biol 125 biol 125L biol 126 bio l 126L	BIOL 107/ 107L	BIOL 111	BIOL 125	BIOL 125
Muskegon Community College	BIOL 103	See Appendix D	See Appendix D	BIOL 104 BIOL 10H BIOL 10G BIOL 10F BIOL 10E BIOL 10D BIOL 10C BIOL 10B BIOL 10A BIOL 10J	BIOL 103	BIOL 104	BIOL 104 BIOL 104 BIOL 103	BIOL 104	BIOL 104	BIOL 104	BIOL 104	biol 104	BIOL 104L	BIOL 104L &L	BIOL 104L &L	BIOL 104	BIOL 104
North Central Michigan College	BIO 152	BIO 152	BIO 152	BIO 151 BIO 152	BIO 151	BIO 152	BIO 152 BIO 151	BIO 151	BIO 152	BIO 152	BIO 152	BIO 152	BIO 152	BIO 152	BIO 152	BIO 152	BIO 152
Northwestern Michigan College	BIO 116 BIO 116L	BIO 116	BIO 116L	BIO 116 BIO 116L SC 111 SC 112 SC 113	BIO 115	BIO 116	BIO 116 BIO 115 BIO 116	BIO 115 BIO 116	BIO 116	BIO 116	BIO 116 BIO 116L	BIO 116 BIO 116L	BIO 116 BIO 116L	BIO 116 BIO 116L	BIO 116	BIO 116 BIO 116L	BIO 116 BIO 116L

Oakland Community College	BIO 1560 BIO 1560	BIO 1560	BIO 1560	BIO 154 BIO 155 BIO 1550 BIO 1540 BIO 1560	BIO 1530	BIO 1560	BIO 1560 BIO 1560	BIO 153 BIO 1530	BIO 1560	BIO 1560	BIO 1560	BIO 1560	BIO 1560	BIO 1560	BIO 1560	BIO 1560	BIO 1560
Schoolcraft College	BIOL 130	BIOL 130	BIOL 130	BIOL 101 BIOL 102 BIOL 130 BIOL 131 BIOL 132	BIOL 120	BIOL 130	BIOL 102 BIOL 130 BIOL 120	BIOL 120 BIOL 131 BIOL 132	BIOL 130	BIOL 130	BIOL 130	BIOL 130	BIOL 130	BIOL 130	BIOL 130	BIOL 130	BIOL 130
Southwestern Michigan College	BIOL 102	BIOL 102	BIOL 102	BIOL 102 BIOL 101 BIOL 211 BIOL 212	BIOL 101	BIOL 102	BIOL 102 BIOL 102 BIOL 101	BIOL 102	BIOL 102	BIOL 102	BIOL 102	BIOL 102	BIOL 102	BIOL 102	BIOL 102	BIOL 102	BIOL 102
St. Clair County Community College	BIO 121	See Appendix D	See Appendix D	BIO 121 BIO 250 BIO 200	BIO 120	BIO 200	BIO 121 BIO 120 BIO 100	BIO 121	BIO 121	BIO 121	BIO 100	bio 121	bio 121	BIO 121 BIO 200 BIO 250	BIO 121	BIO 250	BIO 250
Washtenaw Community College	BIO 161	BIO 161 BIO 227 BIO 228	BIO 161 BIO 227 BIO 228	BIO 128 BIO 127 BIO 161 BIO 228 BIO 227	BIO 162	BIO 161	BIO 161 BIO 161 BIO 215	BIO 162 BIO 215	BIO 161	BIO 161	BIO 161	BIO 161	BIO 161	BIO 103	BIO 161	BIO 103 BIO 162	BIO 103 BIO 162
Wayne County Community College District	BIO 155 BIO 165 BIO 175	See Appendix D	See Appendix D	BIO 165 BIO 175 BIO 105	BIO 155	BIO 175	BIO 175 BIO 165 BIO 155	BIO 298	BIO 175	BIO 175	BIO 175	bio 165 bio 175	bio 165 bio 175	See Appendix D	BIO 165/ 175	BIO 175	BIO 175
West Shore Community College	BIO 122	See Appendix D	See Appendix D	BIO 123 MBIO 123	BIO 122	BIO 122 MBIO 122 MBIO 123	BIO 123 BIO 123 BIO 122	BIO 123	BIO 123	BIO 123	MBIO 123	BIO 123	BIO 123	BIO 123	BIO 122	BIO 123 MBIO 123	BIO 123 MBIO 123

BIO MITransfer Pathway General Chemistry II FINAL	Central Michigan University	Eastern Michigan University	Eastern Michigan University	Grand Valley State University	Michigan Technological University	Michigan Technological University	Northern Michigan University	Oakland University	Oakland University	University of Michigan - Dearborn	Davenport University	Davenport University	Finlandia University	Lawrence Technological University	Lawrence Technological University	Rochester University	Spring Arbor University	University of Detroit Mercy	University of Detroit Mercy
By Receiving Institution	CHM 132	CHEM 123	CHEM 124	CHM 116	CH 1160	CH 1161	CH 112	CHM 1450	CHM 1480	CHEM 136	CHEM 161	CHEM 161L	CHM 116	CHM 1223	CHM 1231	CHE 1524	CHE 112	CHM 1080	CHM 1120
Alpena Community College	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 112	CEM 112	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122
Bay de Noc Community College	CHEM 112	CHEM 112	CHEM 112	CH 106 CHEM 112	CHEM 112	CHEM 112	106 CHEM 112	CHEM 112	CHEM 112	CHEM 112	CHEM 112	CHEM 112	CHEM 112	chem 112	CHEM 112 chem 112	CHEM 112	CHEM 112	CHEM 112	CHEM 112
Delta College	CHM 112 CHM 112H	CHM 112 CHM 112H	CHM 112 CHM 112H	CHM 112 CHM 112H	CHM 112	CHM 112	CHM 112 CHM 112H	CHM 112 CHM 112H	CHM 112 CHM 112H	CHM 112	CHM 112 CHM 112H	CHM 112 CHM 112H	CHM 112 CHM 134	CHM 112	CHEM 132L CHM 112	CHM 112	CHM 112	CHM 112	CHM 112 CHM 112H
Glen Oaks Community College	CHEM 134	CHEM 134	CHEM 134	CHEM 134 NSC 134	CHEM 134	CHEM 134	CHEM 134	CHEM 134 NSC 134	CHEM 134 NSC 134	CHEM 134	CHEM 134	CHEM 134	CHEM 134	CHEM 134	CHEM 134	CHEM 134	CHEM 134	CHEM 134	CHEM 134 NSC 134
Gogebic Community College	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152	CHM 152
Grand Rapids Community College	CHM 140 CHM 141	CHM 140	CHM 141	CHM 141 CHM 140 CHM 160 CHM 161 CM 104 CM 114	CHM 140	CHM 141	CHM 141 CHM 140 CM 114	CHM 140 CHM 160	CHM 141 CHM 161	CHM 161 CHM 160 CHM 141 CHM 140	CHM 140	CHM 141	CHM 141	chm 140	chm 141	CHM 140 CHM 141	CHM 140	CHM 140 CHM 160 CM 104 CM 114	CHM 140 CHM 161 CM 104 CM 114
Henry Ford College	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142	CHEM 142 CHEM 220
Jackson College	CEM 142	CEM 142	CEM 142	CEM 142 CEM 152	CEM 142	CEM 142	CEM 142 CEM 152	CEM 142	CEM 142	CEM 142	CEM 142	CEM 142	CEM 141	CEM 142 chm 142	chm 142	CEM 142	CEM 142	CEM 142	CEM 142
Kalamazoo Valley Community College	CHM 130	CHM 130	CHM 130	CHM 102 CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130	CHM 130
Kellogg Community College	CHEM 111	CHEM 111	CHEM 111	CHEM 111 CHEM 111L	CHEM 111	CHEM 111	CHEM 111	CHEM 111	CHEM 111	CHEM 111L CHEM 111	CHEM 111	CHEM 111	CHEM 111	CHEM 111 chm 111	chm 111	CHM 111	CHEM 111	CHEM 111	CHEM 111
Kirtland Community College	CHE 1020 CHE 1020	CHE 1020 1	CHE 1020 2	CHE 1020 CHE 1020 CHE 1020 CHE 1029 CHE 1029	CHE 1020 1	CHE 1020 2	CHE 1020 CHE 1020 CHE 1029	CHE 1020 1	CHE 1020 2	CHE 1020 1	CHE 1020 2	CHE 1020 1	CHE 1020 2	CHM 1020 1	CHM 1020 2	CHE 1020 1	CHE 1020 1	CHE 1020 1	CHE 1020 2
Lake Michigan College	CHEM 112 HONR 113	CHEM 112 HONR 113	CHEM 112 HONR 113	CHEM 112	CHEM 112	CHEM 112	CHEM 112	CHEM 112 HONR 113	CHEM 112 HONR 113	CHEM 112	CHEM 112 HONR 113	CHEM 112 HONR 113	CHEM 112	chem 112	chem 112	CHEM 112	CHEM 112	CHEM 112	CHEM 112
Lansing Community College	CHEM 152 CHEM 162	CHEM 152	CHEM 162	CEM 172 CEM 182 CHEM 162 CHEM 151 CHEM 152 CHEM 161	CHEM 152	CHEM 162	CHEM 152	CHEM 152	CHEM 162	CHEM 152 CHEM 162	CHEM 152	CHEM 162	CHEM 152 CHEM 162	CHEM 152	CHEM 162	CHEM 152 CHEM 162	CHEM 152/162	CHEM 152	CHEM 162
Macomb Community College	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180 CHM 118	CHEM 1180	CHEM 1180	CHEM 1180 CHM 118	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180	CHEM 1180 CHM 118
Mid Michigan College	CHM 112	CHM 112	CHM 112	CHM 112	CHM 112	CHM 112	CHM 112	CHM 112	CHM 112	CHM 112	CHEM 112	CHEM 112	CHM 112	chm 112	chm 112	CHM 112	CHM 112	CHM 112	CHM 112
Monroe County Community College	CHEM 152	CHEM 152	CHEM 152	CHEM 151 CHEM 152	CHEM 152	CHEM 152	CHEM 152	CHEM 152	CHEM 152	CHEM 152	CHEM 152	CHEM 152	CHEM 152	chem 152	chem 152	CHEM 152	CHEM 152	CHEM 152	CHEM 152
Montcalm Community College	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221	CHEM 221
Mott Community College	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132	CHEM 132 CHEM 132L	CHEM 132	CHEM 132L	CHEM 132/132L	CHEM 132	CHEM 132	CHEM 132
Muskegon Community College	CHEM 102LE CHEM 102A	CHEM 102 LEC	CHEM 102A	CHEM 102A CHEM 102	CHEM 102	CHEM 102A	CHEM 102 CHEM 102A	CHEM 102	CHEM 102A	CHEM 102A CHEM 102L	CHEM 102 LEC	CHEM 102A	CHEM 102 IFC CHEM 102A	CHEM 102	CHEM 102A	CHEM 102 IFC CHEM 102A	CHE 102/L CHEM 102 IFC	CHEM 102 LEC	CHEM 102A
North Central Michigan College	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	CEM 122	cem 112	CEM 122	CEM 122	CEM 122	CEM 122

BIO MiTransfer Pathway Organic Chemistry I FINAL	Central Michigan University	Eastern Michigan University	Grand Valley State University	Michigan Technological University	Michigan Technological University	Northern Michigan University	Northern Michigan University	Oakland University	University of Michigan-Dearborn	Davenport University	Davenport University	Finlandia University	Lawrence Technological University	Lawrence Technological University	Rochester University	Spring Arbor University	University of Detroit Mercy	University of Detroit Mercy			
By Receiving Institution	CHM 345	CHEM 371	CHM 241	CH 2410	CH 2411	CH 315	CH 317	CHM 2340	CHEM 225	CHEM 250	CHEM 250L	CHM 215	CHM 2311	CHM 2313	CHE 2514	CHE 201	CHM 2250	CHM 2270			
Alpena Community College	CEM 221 CEM 222	CEM 221 CEM 222	CEM 221	CEM 221	CEM 221	CEM 221	CEM 221	CEM 221 CEM 222	CEM 221 CEM 222	CEM 221	CEM 221	CEM 221	CEM 221	CEM 221	CEM 221	CEM 221	CEM 221	CEM 221	CEM 221		
Bay de Noc Community College	CHEM 201 CHEM 202	CHEM 201 CHEM 202	CH 201 CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201 CHEM 202	CH 201 CH 202	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201		
Delta College	CHM 210	CHM 210	CHEM 201 CHEM 211 CHM 201L CHM 210 CHM 210L CHM 211L	CHM 210	CHM 210L	CHEM 2260 CHM 210 CHM 210L	CHEM 2270 CHM 210 CHM 210L	CHM 210	CHM 210	CHM 210	CHM 210L W	CHM 210 CHM 210L	CHEM 237L CHM 210L	CHEM 237 CHM 210					CHM 210	CHM 210	
Glen Oaks Community College	CHEM 210	CHEM 210 CHEM 211	CHM 210 NSC 231	CHEM 210	CHEM 210	CHEM 210	CHEM 210	CHEM 210	CHEM 210	CHEM 210	CHEM 210	CHEM 210	chem 210	chem 210	CHEM 210	CHEM 210	CHEM 210 NSC 210	CHEM 210 NSC 210	CHEM 210		
Gogebic Community College	CHM 201 CHM 202	CHM 201 CHM 202	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201 CHM 202	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	CHM 201	
Grand Rapids Community College	CHM 260 CHM 261 CHM 270 CHM 271	CHM 260	CHM 260 CHM 261 CM 266	CHM 260	CHM 261	CHM 260	CHM 261	CHM 260	CM 236 CM 266	CHM 260	CHM 261	CHM 260 CHM 261	CHM 261	CHM 260	CHM 261	CHM 260 CHM 261	CHM 260/2 61	CHM 261 CM 237	CHM 260 CM 236		
Henry Ford College	CHEM 241	CHEM 241	CHEM 241 CHEM 242 CHEM 241	CHEM 241	CHEM 243	CHEM 241 CHEM 242 CHEM 243	CHEM 243 CHEM 241 CHEM 242	CHEM 241	CHEM 241	CHEM 241	CHEM 241	CHEM 243	CHEM 241	CHEM 241	CHEM 241/243	CHEM 241	CHEM 241	CHEM 243	CHEM 241	CHEM 241	
Jackson College	CEM 241 CEM 242	CEM 241 CEM 242	CEM 241 CEM 251	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241 CEM 251 CEM 242	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241	CEM 241	
Kalamazoo Valley Community College	CHM 220 CHM 230	CHM 220 CHM 230 CHM 220	CHM 211 CHM 201 CHM 220	CHM 220	CHM 220	CHM 220	CHM 220	CHM 220 CHM 230	CHM 201 CHM 220 CHM 230	CHM 220	CHM 220	CHM 220	CHM 220	CHM 220	CHM 220	CHM 220	CHM 220	CHM 220	CHM 220	CHM 220	
Kellogg Community College	CHEM 201 CHEM 202	CHEM 201 CHEM 202	CHEM 201 CHEM 201A	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201 CHEM 202	CHEM 201	CHEM 201	CHEM 201	CHEM 201	chem 201 chem 201	CHEM 201 chem 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	CHEM 201	
Kirtland Community College	CHE 20101	CHE 20101	CHE 20102 CHE 20101	CHE 20101	CHE 20102	CHE 20101	CHE 20102	CHE 20101	CHE 20101	CHE 20101	CHE 20101	CHE 20101 CHE 20102	CHM 20102	CHM 20101	CHE 20101 CHE 20102	CHE 20010	CHE 20102	CHE 20102	CHE 20101	CHE 20101	
Lake Michigan College	CHEM 203 CHEM 204	CHEM 203 CHEM 204	CHEM 203	CHEM 203	CHEM 203	CHEM 203	CHEM 203	CHEM 203 CHEM 204	CHEM 203	CHEM 203	CHEM 203	CHEM 203	chem 203 chem 203	chem 203 chem 203	CHEM 203	CHEM 203	CHEM 203	CHEM 203	CHEM 203	CHEM 203	
Lansing Community College	CHEM 251	CHEM 251	CHEM 252 CHEM 251 CHEM 272	CHEM 251	CHEM 272	CHEM 251 CHEM 272 CHEM 252	CHEM 272 CHEM 251 CHEM 252	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251 CHEM 272	CHEM 251	CHEM 272	CHEM 251	CHEM 251/272	CHEM 251	CHEM 272	CHEM 251	CHEM 272	CHEM 251
Macomb Community College	CHEM 2260	CHEM 2260 CHEM 2270 CHEM 2280	CHEM 2260 CHEM 2270 CHEM 2280	CHEM 2260	CHEM 2270	CHEM 2260 CHEM 2270	CHEM 2260 CHEM 2270	CHEM 2260 CHEM 226	CHEM 2260 CHM 226 CHM 230	CHEM 2260	CHEM 2260	CHEM 2260	CHEM 2270	CHEM 2260	CHEM 2260	CHEM 2260	CHEM 2260	CHEM 2260	CHEM 2260	CHEM 2260 CHM 226	
Mid Michigan College	CHM 245	CHM 245	CHM 241 CHM 245 CHM 255	CHM 245	CHM 255	CHM 245	CHM 255	CHM 241 CHM 245	CHM 242 CHM 241	CHM 245	CHM 255	CHM 245 CHM 255	CHM 242	CHM 241	CHM 245 CHM 255	CHM 245/255	CHM 255	CHM 245	CHM 245		
Monroe County Community College	CHEM 251 CHEM 252	CHEM 251 CHEM 252	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251 CHEM 252	CHEM 251 CHEM 252	CHEM 251	CHEM 251	CHEM 251	CHEM 254	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251	
Montcalm Community College	CHEM 251	CHEM 251 CHEM 252	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251	251 CHEM 252	CHEM 251	CHEM 251	CHEM 251	CHEM 251	chem 251	chem 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251	CHEM 251	
Mott Community College	CHEM 237	CHEM 237 CHEM 238	CHEM 238 CHEM 237	CHEM 237	CHEM 237	CHEM 237 CHEM 237L	CHEM 237 CHEM 237L	CHEM 237 CHEM 238	CHEM 237 CHEM 238	CHEM 237	CHEM 237	CHEM 237	CHEM 237L	CHEM 237	CHEM 237	CHEM 237/237L	CHEM 237	CHEM 237	CHEM 237	CHEM 237	

Northwestern Michigan College	CHM 250 CHM 251 CHM 251	CHM 251	CHM 250L CHM 251L	CHM 251L CHM 251	CHM 251	CHM 251	CHM 251	CHM 251 CHM 251L	CHM 251 CHM 250 CHM 251L CHM 250L	CHM 251 CHM 250 CHM 251	CHM 251	CHM 251	CHM 251 CHM 251L	CHM 251 CHM 251L	CHM 251 CHM 251L	CHM 251	CHM 251	CHM 251 CHM 251L	CHM 251 CHM 251L
Oakland Community College	CHE 2620	CHE 2620	CHE 2650	CHE 262 CHE 263 CHE 261 CHE 265 CHE 2610 CHE 2620 CHE 2650	CHE 2620	CHE 2650	CHE 2620 CHE 2650	CHE 2620 CHE 2650	CHE 2620	CHE 262 CHE 2620	CHE 2620	CHE 2650	CHE 2650	CHE 2650	CHE 2620	CHE 2620/ 2650	CHE 2620	CHE 2650	CHE 2620
Schoolcraft College	CHEM 213 CHEM 214	CHEM 213 CHEM 214	CHEM 213 CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 213 CHEM 214	CHEM 213 CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 214	CHEM 214
Southwestern Michigan College	CHEM 201 CHEM 202	CHEM 201 CHEM 202	CHEM 201 CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202 CHEM 201	CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202	CHEM 202
St. Clair County Community College	CHM 215 CHM 216	CHM 215 CHM 216	CHM 215 CHM 216	CHM 216	CHM 216	CHM 216	CHM 216	CHM 216	CHM 216 CHM 215	CHM 216 CHM 215	CHM 216	CHM 216	CHM 216	CHM 216	CHM 216	CHM 216	CHM 216	CHM 216	CHM 216
Washtenaw Community College	CEM 211 CEM 222	CEM 211 CEM 222	CEM 211 CEM 222	CEM 211 CEM 222	CEM 222	CEM 222	CEM 222	CEM 222	CEM 222 CEM 211	CEM 211 CEM 222	CEM 222	CEM 222	CEM 222	CEM 222	CEM 222	CEM 222	CEM 222	CEM 222	CEM 222
Wayne County Community College District	CHM 252	CHM 252	CHM 255	CHM 255 CHM 252 CHM 250 CHM 253	CHM 252	CHM 255	CHM 250 CHM 252 CHM 255	CHM 250 CHM 252 CHM 255	CHM 252	CHM 252 CHM 253 CHM 251	CHM 252	CHM 252	CHM 255	CHM 252	chm 252	CHM 252 chm 252	CHM 252	CHM 252	CHM 255
West Shore Community College	CHM 223	CHM 222 CHM 223	CHM 222 CHM 223	CHM 223 MCH 223	CHM 223	CHM 223	CHM 223	CHM 223	CHM 223 CHM 222	CHM 223	CHM 223	CHM 223	CHM 223	CHM 223	CHM 223	CHM 223	CHM 223	CHM 223 SP 222/3	CHM 223

APPENDIX D:
MiTransfer Biology Pathway Course Equivalency Exceptions

Find Excel versions of Appendix D at www.mittransfer.org.

BIOLOGY

Course	College/University	Community College	Explanation
Biology I (Cell, Molecular)	Eastern Michigan University	Gogebic Community College	Syllabus under review
Biology I (Cell, Molecular)	Eastern Michigan University	Muskegon Community College	Syllabus under review
Biology I (Cell, Molecular)	Eastern Michigan University	St. Clair County Community College	Syllabus under review
Biology I (Cell, Molecular)	Eastern Michigan University	Wayne County Community College District	No syllabus to review; Accepted to satisfy major requirements
Biology I (Cell, Molecular)	Michigan Technological University	Wayne County Community College District	WCCCD - BIO 165, Botany, will transfer as MTU - BL 2160, Botany, instead of Organismal Biology; Accepted to satisfy major requirements
Biology II (Organismal)	Eastern Michigan University	Glen Oaks Community College	No syllabus to review
Biology II (Organismal)	Eastern Michigan University	Gogebic Community College	Syllabus under review
Biology II (Organismal)	Eastern Michigan University	Mott Community College	Syllabus under review
Biology II (Organismal)	Eastern Michigan University	Muskegon Community College	Syllabus under review
Biology II (Organismal)	Eastern Michigan University	St. Clair County Community College	Syllabus under review
Biology II (Organismal)	Eastern Michigan University	Wayne County Community College District	No syllabus to review; Accepted to satisfy major requirements
Biology II (Organismal)	Eastern Michigan University	West Shore Community College	Syllabus under review
Biology II (Organismal)	Rochester University	Wayne County Community College District	WCCCD - BIO 165, Botany, will transfer as Rochester University - BIO 2224
Biology II (Organismal)	University of Detroit Mercy	Bay College	UDM course covers evolution and anatomy/physiology and Bay's course does not
Biology II (Organismal)	University of Detroit Mercy	Kirtland Community College	UDM course covers evolution and anatomy/physiology and Kirtland's course does not
Biology II (Organismal)	University of Detroit Mercy	Mid Michigan College	UDM course covers evolution and anatomy/physiology and Mid MI's course does not