

An institution's president (or his/her authorized representative) must sign the Michigan Transfer Agreement Participation Form, which acknowledges that the institution agrees to adhere to the policies and procedures described herein. The Chair of the MACRAO College Articulation Committee may be contacted for assistance in completing the request by sending an email to michigantransferagreement@gmail.com.

### **GUIDELINES FOR THE MICHIGAN TRANSFER AGREEMENT**

#### Purpose

The Michigan Transfer Agreement (MTA) was designed to facilitate the transfer of general education requirements from one institution to another. Students may complete the Michigan Transfer Agreement as part of an associate's degree or as a stand-alone package. All of the participating institutions should make it a priority to help students utilize courses they have already completed at various colleges toward the goal of satisfying this agreement.

In describing how the core college courses fit into a student's bachelor's degree, one can envision that the 30 credits of core college courses will most likely fulfill all or the majority of the student's lower level general education requirements dependent on their major. If the course does not fit into the major requirements, then that course and credits will be counted towards the student's overall degree requirements. A transfer student must be admissible to a receiving institution in order to benefit from this agreement.

#### Guiding principles and recommendations for the Michigan Transfer Agreement

- Make the agreement simple and easy to understand
- Keep the agreement student-focused
- Treat transfer students the same as native students at the receiving institution
- Acknowledge the distinction between the MTA and degree requirements
- Promote transparency among institutions to ensure accurate transfer information for students
- Require students to complete at least one credit-bearing course at the institution awarding the MTA

#### **Minimum Requirements**

To fulfill the Michigan Transfer Agreement, students must successfully complete at least 30 semester credits\* from a regionally accredited institution with at least a grade of 2.0 in each course. Developmental courses and courses of a vocational nature will not be included. These credits, which will be certified by a sending institution, should be met according to the following distributions:

- One course in English Composition
- A second course in English Composition or one course in Communications
- Two courses in Social Sciences (from two disciplines)
- Two courses in Humanities and Fine Arts (from two disciplines excluding studio and performance classes)
- Two courses in Natural Sciences including one with laboratory experience (from two disciplines)
- One course in Mathematics\*\* that should be satisfied by an entry-level college course.

\* Additional coursework may be necessary to satisfy the 30 credit hour requirement.<sup>1</sup>

\*\*A mathematics course should be treated as an entry-level college course; see Math Requirement section that follows for a full description.

<sup>&</sup>lt;sup>1</sup> Quarter hour based credits must be converted to equal 30 semester credit hours in order to fulfill the MTA.

#### **Math Requirement**

A select number of mathematics faculty from two-year and four-year institutions were appointed to a special task force to define the MTA math requirement. The Math Task Force devised three math pathways that satisfy the MTA math requirement:

# College Algebra Pathway - For students proceeding to programs that specifically require background in algebra, particularly STEM programs.

Statement on Prerequisites:

- For success in the College Algebra Pathway a college level course has a prerequisite skill level of intermediate algebra or high school algebra II or equivalent content. Students will be expected to apply advanced algebra skills.
- > This course must be beyond Intermediate Algebra.

#### *Topics/content that should be a part of a course in this pathway:*

Functions, polynomials (including polynomials of degree greater than 2 and the fundamental theorem of algebra), rational functions, logarithms, exponential functions, inverse functions, and graphing by recognition and transformation rather than by plotting points. Pre-calculus topics such as sequences and series may also be included.

Descriptors to consider for this pathway:

- This course (possibly in conjunction with a separate course on trigonometry) would qualify a student to take a calculus course
- This course should be one that your mathematically capable student would start with after completing high school Algebra I and II
- > This course should provide a strong foundation for critical mathematical thinking
- Many students in this pathway will have additional math courses required for their program; if a college-algebra-type course is a prerequisite for that course, students who are ready to begin with that course might be able to use it for meeting the math requirement.

#### Guidelines from the Mathematics Association of America:

College Algebra provides students a college-level academic experience that emphasizes the use of algebra and functions in problem solving and modeling, provides a foundation in quantitative literacy, supplies the algebra and other mathematics needed in partner disciplines, and helps meet quantitative needs in, and outside of, academia. Students address problems presented as real world situations by creating and interpreting mathematical models. Solutions to the problems are formulated, validated, and analyzed using mental, paper and pencil, algebraic, and technology-based techniques as appropriate.

Link: <u>http://www.maa.org/sites/default/files/pdf/CUPM/crafty/CRAFTY-Coll-Alg-Guidelines.pdf</u>

#### Statistics Pathway - For students proceeding to programs in business or social sciences.

Statement on Prerequisites:

- > The Statistics Pathway will satisfy the MTA requirements for general education.
- For success in the Statistics Pathway a college level course has a prerequisite skill level of at least beginning algebra or high school algebra I or equivalent content. Students will be expected to apply basic algebra skills.

*Topics/content that should be a part of a course in this pathway:* 

Probability, descriptive statistics, and inferential statistics, including hypothesis testing, p-values, confidence intervals, and linear regression. The course should incorporate both formula-based and technology-based approaches to statistics.

Descriptors to consider for this pathway:

- > This course must go beyond descriptive statistics
- > The course can be algebra-based or calculus-based
- The course must taught and organized by come from the Math (or Statistics) department or be cross-listed as a Math (or Statistics) course
- > The course should be conceptually driven from a Math perspective

#### Guidelines from the American Statistical Association:

- The best thinking about introductory statistics courses is that students should focus on statistical thinking. The Guidelines list goals of the statistics course, which form the minimum expectations for an MTA statistics course.
- Link: <u>http://www.amstat.org/education/gaise/GAISECollege\_Goals.pdf</u>

# Quantitative Reasoning Pathway - For students proceeding to programs not requiring statistics or calculus.

Statement on Prerequisites:

- The Quantitative Reasoning Pathway will satisfy the MTA requirements for general education.
- For success in the Quantitative Reasoning Pathway a college level course has a prerequisite skill level of at least beginning algebra or high school algebra I or equivalent content. Students will be expected to apply basic algebra skills.

#### *Topics/content that should be a part of a course in this pathway:*

- > Mathematical modeling and the use of reasoning to choose between competing models
- > Numeric, symbolic, and graphical methods to handle a variety of applications
- Topics could include but are not limited to number sense and estimation, linear and non-linear models, financial models, symbolic logic, networks and graphs, probability and counting, statistical reasoning, voting theory, geometric models, similarity and scaling, and game theory

#### Descriptors to consider for this pathway:

- Building on the Kentucky guidelines articulated below, this course should help students communicate mathematical and/or statistical information symbolically, visually, and/or numerically.
- > This course should also help students communicate a quantitative argument in writing.

#### Guidelines borrowed from the Kentucky Council on Postsecondary Education:

- The General Education Transfer Policy and Implementation Guidelines for Quantitative Reasoning (page 11):
  - ✓ Interpret information presented in mathematical and/or statistical forms.
  - ✓ Illustrate and communicate mathematical and/or statistical information symbolically, visually, and/or numerically.
  - ✓ Determine when computations are needed and to execute the appropriate computations.
  - $\checkmark$  Apply an appropriate model to the problem to be solved
  - ✓ Make inferences, evaluate assumptions, and assess limitations in estimation modeling and/or statistical analysis.
- Link: <u>http://cpe.ky.gov/NR/rdonlyres/6D7A8159-16D8-4810-A0B6-3D8161157D73/0/Revised GE Transfer PolicyImp Guidelines.pdf</u>

#### **Residency Requirement**

Many students earn credits at several institutions. Nevertheless, students will be required to complete at least one credit-bearing course in order for an institution to grant an "MTA Satisfied" endorsement. The credit-bearing course is not required to be from the areas represented in the MTA, but must be a college level class. In keeping with the spirit of the Michigan Transfer Agreement, sending institutions should apply transferred courses that meet the spirit of a MACRAO category.

#### **Participating Institutions**

The intent of this agreement is that all Michigan public community colleges and universities should participate. Private colleges and universities including tribal institutions are encouraged to participate. Coursework applied to a MTA must be earned at a regionally accredited institution.

#### Implementation Timeframe for the MTA Agreement

The MTA will take effect for students who begin their studies in the fall 2014 semester. Students who started prior to fall 2014 will be able to complete the existing MACRAO Agreement until the end of the summer 2019. Irrespective of time, if a student already has a "MACRAO Satisfied" endorsement previously placed on their transcript, it is expected that receiving institution will still honor it in the best interest of this individual.

#### Certifying Students as "MTA Satisfied"

It is the sending institution's responsibility to develop a process to certify students who have satisfied the requirements of the MTA, which includes prominently displaying "MTA Satisfied" on an official transcript. Sending institutions are encouraged to automatically review the transcript when a student earns an associate's degree.

#### Determining Degree Requirements that are Satisfied by the MTA

Institutions must clearly identify the lower-level general education course requirements that are satisfied by the completion of the MTA. This may consist of all of an institution's lower-level general education requirements or a subset. Final recommendations submitted to the legislature state that the thirty credit hours of lower-level general education from the sending institution will be accepted as a block of 30 credit hours by the receiving institution. The receiving institution will consider these requirements satisfied if a transcript includes the "MTA Satisfied" designation.

Completion of the MTA applies only to satisfying the lower-level general education requirements identified by the receiving institution. The receiving institution will determine transferability, equivalence and applicability of individual courses in meeting major, minor or other graduation requirements.

Any additional general education requirements beyond those outlined by the MTA must be applied equally to other students at the institution (native/transfer).

#### Michigan Transfer Agreement Articulation Handbook

Institutions agree to adhere to the recommendations set forth in the Michigan Transfer Agreement Articulation Handbook, which may be revised from time to time. MTA participating institutions would be given notice of any changes in advance by way of the registrar. The registrar is responsible for forwarding the revised handbook to institution's MTA contact who will ensure the proper dissemination of information.

#### **Michigan Transfer Agreement Revisions**

The Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) has been charged with maintaining the MTA. From time to time, it may become necessary for MACRAO to revise the MTA. Such revisions would not take place without extensive consultation from institutions of higher learning through collaboration with the Presidents Council, State Universities of Michigan (PCSUM) and the Michigan Community Colleges Association (MCCA). The Association of Independent Colleges and Universities of Michigan will also be invited to participate in any revision discussions. An approved MTA revision will be forwarded to college and university presidents in order for them to re-authorize their institution's participation.



### Michigan Transfer Agreement Participation Form

	_ agrees to participate in the Michigan Transfer Agreement
(Name of Institution)	
as ainstitution and agrees to(Sending/Receiving)	accept and implement the attached MTA guidelines and
the accompanying Michigan Transfer Agreement Articulation Handbook.	
Signed:	Date:
(President or Authorized Representative)	
Printed Name:	Title:
E-Mail signed form to:	

Kurt Kruschinska, Historian kurt@wayne.edu