

MEMO

FROM: OHIO Transfer Credit and Articulation Management (contact: Jessica Holliday)
CC: Reimagining General Education Leadership Team (contact: Katie Hartman)
SUBJECT: **Ohio Transfer Module (OTM) Submission Process**
DATE: March 4, 2020

The purpose of this document is to provide step-by-step instructions¹ for processing courses for Ohio Transfer Module (OTM) approval. Details about the OTM are available through the Ohio Department of Higher Education (ODHE) at <https://www.ohiohighered.org/transfer/transferrmodule>.

Step 1: Identify an OHIO BRICKS component for the course

Details about the reimagined general education (a.k.a. OHIO BRICKS) are available online from the [UCC General Education Committee](#). The documentation identifies components that are restricted to only courses that have OTM-approval (listed below).

Category	Component	Min. Hrs	OTM Area of Distribution
Foundations	Written Communication	3	OTM First Writing
Foundations	Quantitative Reasoning	3	OTM Mathematics, Statistics, and Logic
Pillars	Humanities: Texts and Contexts	3	OTM Arts and Humanities
Pillars	Humanities: Arts	3	OTM Arts and Humanities
Pillars	Natural Sciences	3	OTM Natural Sciences
Pillars	Social or Behavioral Sciences	3	OTM Social and Behavioral Sciences
Arches	Constructed World	3	OTM Arts and Humanities -OR- OTM Mathematics, Statistics, and Logic
Arches	Connected World	3	OTM Social and Behavioral Sciences
Arches	Natural World	3	OTM Natural Sciences

Step 2: Match course learning outcomes to the OHIO BRICKS component learning outcomes.

Learning outcomes for breadth of knowledge and common goals for OHIO BRICKS are available online from the [University Curriculum Council's General Education Committee](#).

Please consider the extent to which the course achieves learning outcomes for the intended OHIO BRICKS component and the extent to which any course adjustments will need to be made. If course adjustments are needed, the process for UCC approval may occur concurrently with the process for OTM approval.

Please contact Katie Hartman (hartmank), Beth Quitslund (quitslun), and/or Sara Helfrich (Helfrich) with questions about the OHIO BRICKS and/or UCC general education course approvals.

Step 3: Identify an appropriate area of distribution of the Ohio Transfer Module (OTM).

State-specified guidelines and learning outcomes for the six areas of distribution are available online through the [OTM Guidelines and Learning Outcomes](#) website. Generally, all guidelines require that courses are not remedial, special topics, upper-division (3000 or 4000), or narrowly defined / technical. Areas of distribution also have area-specific guidelines and limitations.

¹ Please contact the Associate Director for Transfer Credit and Articulation Management, Jessica Holliday (email: hollidaj) with questions or for additional details.

Step 4: Complete the OTM CEMS Submission Preparation Template.

For each area of distribution, the state provides an OTM Course Equivalency Management System (CEMS) Submission Preparation Template online ([OTM Guidelines and Learning Outcomes](#)). Each template lists the broad OTM learning outcomes and area of distribution guidelines. Each template requires descriptions of learning and assessment activities that meet outcomes and areas of distribution guidelines.

ODHE provides [helpful hints and sample syllabi](#) by area of distribution online. Examples of completed templates are provided in *Appendix B* at the end of this document.

Step 5: Complete the OTM CEMS Course Inventory Form.

To submit courses for OTM approval, course data must be submitted to ODHE's Course Equivalency Management System (CEMS). Required course data includes course title, transcript ID, start term / year, credit hours (including lecture / lab hours per week), the catalog description, instruction goals or objectives, and description of assessment. Required attachments include a working syllabus and pre-/co-requisite syllabi.

This information should be reported through the Course Inventory form provided in *Appendix A* at the end of this document.

Step 6: Submit the completed template, inventory form, current syllabus, and supplemental materials (if necessary).

OHIO's Associate Director for Transfer Credit and Articulation Management (or designee) submits all applications for OTM-approval. Materials must be submitted to the Associate Director no later than two weeks prior to the ODHE's OTM submission deadline. For 2020-21, deadlines to submit completed materials to the Associate Director are **September 18, 2020**, and **February 15, 2021**.

Step 8: Receive feedback and/or confirmation of submission.

The Associate Director for Transfer Credit and Articulation Management (or designee) will review all materials, ask for clarifications or revisions (if necessary), and submit documentation for review. Applicants will receive confirmation of submission before the ODHE OTM submission deadlines (October 2, 2020, or March 1, 2021).

Step 9: Receive feedback and/or confirmation of approval.

Faculty review panels for ODHE's Ohio Articulation and Transfer Network review submissions twice per year. The [review cycle timeline](#) for 2020-21 is October 19 – November 16, 2020, and March 15 – April 12, 2021.

After each review period, the Associate Director for Transfer Credit and Articulation Management (or designee) will be notified of decisions and provided feedback (if needed). The Associate Director for Transfer Credit and Articulation Management (or designee) will share this information with faculty via email.

Appendix A: Course Inventory Form

Course Title	
Campuses (<i>please list all</i>)	
Course ID (e.g., MKT 2400)	
Beginning Term (<i>i.e., When is (was) it offered for the first time?</i>)	
Credit Hours (exact or range)	
Lecture hours per week	
Lab hours per week	
Other hours per week	
Textbook and Readings	ISBN: Title: Publisher: Author(s): Edition: Copyright Year: Additional Notes:
Pre-Requisite and Co-Requisite Requirements	
Course Catalog Description	
Instructional Goals or Objectives	
Description of Assessment and/or Evaluation of Student Learning	

Required attachments: Course syllabus and pre-/co-requisite syllabi

Appendix B: Sample Preparation Templates

Arts and Humanities / Social and Behavioral Sciences² Submission Preparation Template

OTM Learning Outcomes/Guidelines (All of the fields are required)	Your Students' Learning Experiences and Evidence to Meet the OTM Learning Outcomes/Guidelines
	For the relevant Learning Outcomes (at least one from Learning Outcomes 1a-e) and Guidelines 6-10, please describe in detail the learning and assessment activities and exercises that students complete in order to meet each Learning Outcome and Guideline. For Guidelines 1-5, please affirm that the course meets each Guideline.
<p>Learning Outcomes: The course directly emphasizes at least <u>one</u> of the learning outcomes for the Transfer Module. Which of these learning outcomes are addressed and how?</p> <p>a) Communicate effectively: All general education programs include a component for writing; many also include a component for oral communication or presentation</p> <p>b) Evaluate arguments in a logical fashion: Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.)</p> <p>c) Employ the methods of inquiry characteristic of natural sciences, social sciences, and the arts and humanities: The tools for solving problems vary across disciplines; general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different disciplines</p> <p>d) Acquire an understanding of our global and diverse culture and society</p> <p>e) Engage in our democratic society: One of the overarching goals of general education is to prepare students to be active and informed citizens, the development of a disposition to participate in and contribute to our democracy is full of equal importance to the goal of having the skills to do so intelligently.</p>	<p><i>NOTE: You only have to choose 1 of the provided learning outcomes.</i></p> <p>The course directly emphasizes the following learning outcome: d) acquire an understanding of our global and diverse culture and society.</p> <p>The course requires students to describe and explain the major features and themes of various dance styles across the world. To assess student learning on this outcome, students are required to identify the aesthetic principles underlying different dance genres and discern their place in the broad spectrum of dance history based on different regions, time periods, and countries.</p>
Guideline 1: The course has the required entry level college proficiencies appropriate to the course. Entry	There are no prerequisites beyond admittance to the university and requires only entry level proficiencies.

² The Social and Behavioral Sciences Submission Preparation Template varies slightly from the example provided. Official templates can be found through the [OTM Guidelines and Learning Outcomes](#) website.

level college proficiencies can be shown using a variety of means including placement exams, prerequisite coursework and a description of the course materials.	This is demonstrated by the entry-level college materials required for the course including the assignment of an entry-level college textbook and scholarly journal articles as required readings.
Guideline 2: Course is not remedial or developmental.	This course is not remedial or developmental. It is a 1000 level course
Guideline 3: Course does not cover variable content from term to term.	The same content is covered each semester across the academic year.
Guideline 4: Course is not a special topics course.	Course is not a special topics course.
Guideline 5: Course is not an upper division course.	This course is a 1000/2000 level course and is not considered an upper division course.
Guideline 6: Course is not a narrowly-focused technical or pre-technical course.	Course is not a narrowly focused or pre-technical course.
Guideline 7: Course is an introductory-level course that focuses on the study of human endeavors spanning historical periods, regions and cultures	This is an introductory-level course that focuses on the study of human endeavors spanning historical periods, regions, and cultures.
Guideline 8: Course is from one of the following disciplines: history of dance, art, music, theatre, film, literature, religion, philosophy, ethics or history. <i>NOTE: This is not an exhaustive list of accepted disciplines.</i>	This course is from a discipline of Dance.
Guideline 9: Course employs the methods of inquiry characteristic of arts and humanities.	The course considers methods of inquiry common to arts and humanities including research, contextualization, presentation, and critique.
Guideline 10: Course is not a skill developmental or a preparatory course for advanced study in a major (e.g. applied music lessons, studio art, symbolic logic, theatre skills and creative writing).	This course is not a skill development or preparatory course for advanced study in a major.

Mathematics, Statistics, and Logic Submission Preparation Template

<p align="center">OTM Learning Outcomes/Guidelines (All of the fields are required)</p>	<p align="center">Your Students' Learning Experiences and Evidence to Meet the OTM Learning Outcomes/Guidelines</p>
<p>Learning Outcomes: The course directly emphasizes at least one of the learning outcomes for the Transfer Module. Which of these learning outcomes are addressed and how?</p> <ul style="list-style-type: none"> a. Communicate effectively: All general education programs include a component for writing; many also include a component for oral communication or presentation. b. Evaluate arguments in a logical fashion: Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.). c. Employ the methods of inquiry characteristic of natural sciences, social sciences, and the arts and humanities: The tools for solving problems vary across disciplines; general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different disciplines. d. Acquire an understanding of our global and diverse culture and society e. Engage in our democratic society: One of the overarching goals of general education is to prepare students to be active and informed citizens, the development of a disposition to participate in and contribute to our democracy is full of equal importance to the goal of having the skills to do so intelligently. 	<p>Please provide in details the learning and assessment activities and exercises that students undergo in order to meet any of the outlined learning outcomes.</p> <p>This course focuses on (b). Students learn from lectures and exercises both deductive and inductive logic, including probability. The specific examples are given below.</p>
<p>Guideline 1: A credit-bearing, college-level course in Mathematics must use the standards required for high school graduation by the State of Ohio as a basis and must do at least one of the following: 1) broaden, or 2) deepen, or 3) extend the student's learning.</p>	<p>Please explain in detail:</p> <p>a) Which standards/learning outcomes required for high school graduation by the State of Ohio does the course use as a basis? (Standards are available at http://education.ohio.gov/Topics/Ohios-Learning-Standards/Mathematics)</p> <p>Modeling; Statistics and Probability (S.CP.1-4 and 6-8; S.MD.7)</p>

b) Please provide specific examples of the type of learning and assessment processes (including exercises and activities) that students undergo in order to meet the objectives of the course submitted, which is designed to do one of the following: 1) broaden, 2) deepen, or 3) extend their learning.

(1) Propositional logic broadens the learning outcome of modeling.

Most important exercises ask the students to read a passage containing an argument, identify and symbolize the argument using propositional logic, and construct a formal proof to show the validity of the argument.

Here's one example of exam questions (the answers are in red):

[Symbolization and Proof] In *Catch-22*, the following argument occurs:

If Orr was CRAZY, he could be GROUNDED if he ASKED to be. If he was grounded, he must have asked to be. And if he asked, he would no longer be crazy and could not be grounded. Therefore, Orr could not be grounded.

(a) Symbolize the argument on a single line:

C - (A-G), G-A, A-(C&G) therefore G

(b) Prove the validity of the above argument by constructing a formal proof, using any of the rules you learned so far.

(2) Probability and inductive logic deepen and extend the students' learning of statistics and probability. Below are some questions from the exams.

[Probability] If events A and B are independent, what is the probability of their conjunction, that is, $\Pr(A \& B)$? You only need to state the required formula: $\Pr(A \& B) = \Pr(A) \times \Pr(B)$

[Definition] Explain what the conjunction fallacy is.

	<p>One commits the conjunction fallacy when they judge a conjunction of two events to be more probable than one of the events in a direct comparison.</p> <p>[Definition] Describe Tversky and Kahneman’s explanation (i.e., judgment by representativeness) of why people commit the conjunction fallacy. In your description, refer to an example like the Linda problem.</p> <p>One estimates a probability of an event by representativeness when they estimate the probability by reference to the degree to which the event is representative of some stereotype. In the Linda problem, most people think it is more likely that she is a bank teller and feminist than that she is a bank teller. Here people seem to be estimating the probability by representativeness. The description of Linda fits the stereotype of a feminist, so people overestimate the probability that she is a feminist bank teller.</p> <p>[Conditional Probability] The incidence of breast cancer in a general population of women is about 1%. If a woman has breast cancer, the probability that that she will have a positive mammogram is 100%. If a woman does not have breast cancer, the probability is 10% that she will still get a positive mammogram. Imagine a woman who has a positive mammogram. What is the probability she actually has breast cancer, given that she has a positive mammogram? Let B = She has breast cancer, and M = She has positive mammogram. Use the method of natural frequencies to find the answer.</p>
<p>Guideline 2: Course does not cover variable learning outcomes from term to term.</p>	<p>The content of the course or learning objectives do not vary by term. The same content is taught each term.</p>
<p>Guideline 3: Course is not an upper-division course.</p>	<p>Based on the course number (1200) the course is a lower-division course. Also, the course does not have additional pre- or co-requisites.</p>
<p>Guideline 4: Course is in the area of mathematics, or statistics, or logic.</p>	<p>This course is in the area of logic, specifically, and fulfills the Ohio University Quantitative Skills requirement for general education.</p>

Natural Sciences Submission Preparation Template

OTM Learning Outcomes/Guidelines (All of the fields are required)	Your Students' Learning Experiences and Evidence to Meet the OTM Learning Outcomes/Guidelines
	For the relevant Learning Outcomes (at least one from Learning Outcomes 1a-e) and Guidelines 7-11, please describe in detail the learning and assessment activities and exercises that students complete in order to meet each Learning Outcome and Guideline. For Guidelines 1-5, please affirm that the course meets each Guideline.
<p>Learning Outcomes: The course directly emphasizes at least <u>one</u> of the learning outcomes for the Transfer Module. Which of these learning outcomes are addressed and how?</p> <ol style="list-style-type: none"> Communicate effectively: All general education programs include a component for writing; many also include a component for oral communication or presentation. Evaluate arguments in a logical fashion: Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.). Employ the methods of inquiry characteristic of natural sciences, social sciences, and the arts and humanities: The tools for solving problems vary across disciplines; general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different disciplines. Acquire an understanding of our global and diverse culture and society Engage in our democratic society: One of the overarching goals of general education is to prepare students to be active and informed citizens, the development of a disposition to participate in and contribute to our democracy is full of equal importance to the goal of having the skills to do so intelligently. 	The course directly emphasizes the following learning outcome: c) Employ the methods of inquiry characteristic of natural sciences.
<p>Guideline 1: The course has the required entry level college proficiencies appropriate to the course. Entry level college proficiencies can be shown using a variety of means including placement exams, prerequisite coursework and a description of the course materials.</p>	There are no prerequisites beyond admittance to the university and requires only entry level proficiencies. This is demonstrated by the entry-level college materials required for the course including the assignment of an entry-level college

	textbook and scholarly journal articles as required readings.
Guideline 2: Course is not remedial or developmental.	This course is not remedial or developmental.
Guideline 3: Course does not cover variable content from term to term.	The course content is not variable from term to term.
Guideline 4: Course is not a special topics course.	This is not a special topics course.
Guideline 5: Course is not an upper division course.	This course is a lower level course and is not considered upper division.
Guideline 6: Course is not a narrowly-focused technical or pre-technical course.	Course is not narrowly-focused or pre-technical.
Guideline 7: Course is an introductory course that makes clear the importance of experimental inquiry in the sciences and the way in which such inquiry into the natural world leads scientists to formulate principles that provide universal explanations of diverse phenomena.	This is an introductory course where student's will learn the basic knowledge of the earth's dynamic, natural environmental systems including weather and climate, landforms, soils, ecosystems, and biomes.
Guideline 8: Course helps the students to develop an understanding of structured thinking involving induction and deduction.	This course involves both the recognition of landscape patterns, as well, as understanding the processes that create those patterns. By the end of the course, students will be able to explain the causes of seasons, temperature change, and precipitation, and how and why climate and natural vegetation vary over the earth's surface.
Guideline 9: Course is from natural science disciplines such as astronomy, biology, chemistry, environmental science, geology, physical geography or physics.	Course is from a physical geography discipline.
Guideline 10: The course has as a goal the development of an understanding of how scientific principles are built and used in the modern world and of the impact of science on society.	Course examines the interacting processes of the earth's atmosphere, hydrosphere, biosphere, and lithosphere, in order to understand the natural environment in which we live, as well as the role of humans in affecting that environment.
Guideline 11: The course does not focus exclusively on content coverage, without addressing the learning outcomes for the Transfer Module.	This course does not exclusively focus on content coverage.

<u>If the course you are preparing for an OTM submission is a laboratory course or has a laboratory component, please also respond to Guidelines 12 and 13 (if the course is lecture only – complete learning outcomes and Guidelines 1-11 only). Please provide a separate cover memo for each mode of lab delivery to accompany the relevant version of the working syllabus (with each mode of delivery having its own unique working syllabus). In each version of the cover memo, the faculty should explain in detail specifically how the lab component of the course via that delivery mode meets Guideline 12 and each of the five separate learning objectives a-e in Guideline 13.</u>	
Guideline 12: Course has a laboratory component that has at least one credit hour and involves at least 1,500 minutes of laboratory activities (an average of no less than two hours per week for a traditional fifteen-week semester).	When entering in CEMS, please

	simply enter “See the attached memo.”
<p>Guideline 13^a: The laboratory component of the course achieves the following learning objectives in the equivalent of at least 10 weeks (~2/3) of the course’s “laboratory activities”:</p> <ol style="list-style-type: none"> involves realistic measurements of physical quantities; involves data analysis, using data that are unique and/or physically authentic and that includes random and/or systematic (natural) variability; includes realistic interactions with experimental apparatus, and realistic manipulation of tools/ instruments and/or observed objects in space and time; involves synchronous feedback² on safety (and consequences of unsafe actions), correctness of procedure, and progress toward experimental goals; and involves effective interaction with the instructor at several points during each lab activity. <p><i>Footnotes for Guideline 13:</i></p> <ol style="list-style-type: none"> <i>Some disciplines, such as astronomy, meteorology, and ecology, are more amenable to achieving a quality virtual educational laboratory experience. By contrast, other disciplines, such as chemistry*, microbiology, and physics, are much less likely to meet the expectations of an OTM natural sciences laboratory course if focused heavily on virtual laboratory experiences. [*The American Chemical Society has released a Position Statement on this issue: https://www.acs.org/content/acs/en/policy/publicpolicies/education/computersimulations.html]</i> <i>Synchronous feedback on safety could be achieved using sophisticated computational approaches or by actual instructor feedback.</i> Helpful hint: <i>Proof of safety feedback is key to receiving OTM approval (especially for virtual labs). Some successful submission have met this outcome by providing 24hr help lines or natural stopping points where students must submit a lab report and receive feedback before moving on.</i> 	<p>When entering in CEMS, please simply enter “See the attached memo.” (Note: remember to include a working lab syllabus for each lab mode and lab schedule.)</p>

Example Natural Science Lab Memo

GEOG 1100: Physical Geography

Credit hours: 4

Lecture contact hours: 3.0

Lab contact hours: 2.0

All labs will meet on-campus in 115 Clippinger

Students enrolled in GEOG 1100: Physical Geography must also attend the lab for which they’ve registered.

Lab Time	Call Number
F 9:40-11:30	XXXXXX
F 11:50-1:40	XXXXXX
F 2:00-3:50	XXXXXX
F 4:00-5:50	XXXXXX
R 3:40 – 4:50	XXXXXX

The lab is equivalent to 1½ lecture exams (i.e., 60 points). Student must complete the requirements for the lab in order to pass the course..

Required Lab Book: *Physical Geography Lab Manual*, available at Copy Catz, 13 W. Union St.

An atlas also is recommended, though not required.

Many of the exercises require data to be gathered outside. For each lab, you must bring a calculator and course lecture notes. An atlas (the inexpensive *Hammond's Comparative World Atlas*, or similar) is recommended, though assignments may be completed using the wall maps in Clippinger.

Guideline 13:

*Helpful hint: Please provide a brief description of how students are meeting **each** of the following learning outcomes. Include examples of the lab exercise and assessment in your description. Remember to include a copy of the lab syllabus with a lab schedule. If there are various modes of the lab (i.e. virtual and on-campus), include a separate syllabus for each mode.*

- a. **Realistic measurements of physical quantities;**
Students are required to gather data to satisfy lab exercises. For example, in Lab 8: Hydrology of the Hocking River, students are required to measure volume of water passing through a cross-section of the river and gather discharge samples. Later, students will use this data to evaluate water quality.
- b. **Data analysis, using data that are unique and/or physically authentic and that includes random and/or systematic (natural) variability;**
Brief description and example.
- c. **Realistic interactions with experimental apparatus, and realistic manipulation of tools/ instruments and/or observed objects in space and time;**
Brief description and example.
- d. **Synchronous feedback² on safety (and consequences of unsafe actions), correctness of procedure, and progress toward experimental goals; and**
The lab instructor observes safe laboratory practice at all times and provides students with immediate feedback on unsafe practices or inappropriate use of lab/safety equipment. Students' are quizzed prior to attending weekly labs to ensure understanding of the lab exercise and are assessed throughout the lab to ensure completeness and use of appropriate safety measures.
- e. **Involves effective interaction with the instructor at several points during each lab activity. Students are monitored during each lab to ensure appropriate safety measures are being done.**
Safe laboratory practice is observed at all times in the lab. Students are required to read the lab exercise ahead of time and complete a pre-lab assignment. Students attend a pre-lab lecture prior to lab in which potential hazards for the lab are discussed. Students are required to wear closed appropriate attire and safety equipment at all times in the lab.