

**Fond du Lac Tribal and Community College
COURSE OUTLINE FORM**

03/19/19

Please return this form to the college vice president of academic affairs and the chairperson of the Academic Affairs and Standards Council (AASC)

1. Prepared by: _____

2. Date submitted: _____

3. Date approved: 3/19/19 Date revised _____

4. Department/discipline: American Indian Studies

5. Department(s) endorsement(s): _____
(Signatures of the person(s) providing the endorsement are required.) _____

6. Course Title: Wigwametry
Abbreviated course title for Transcripts (25 characters or less): _____

7. Course Designator: AMIN 8. Course Level: 1030

9. Number of Credits: Lecture 2 Lab _____

10. Control Number (on site) 25 Control Number (online) _____

11. Catalog/Course description:

This course provides early childhood education (ECE) candidates with science, technology, engineering, arts, and math (STEAM) methodology and content centered on a project-based learning activity entitled "Wigwametry." Students will learn to modify concepts in constructing scale models and life size structures to early childhood learning activities. Students will explore indigenous science principles of green engineering and create age-appropriate learning experiences for children, based on the mathematics of circles and spheres. Students will develop problem solving situations for children to analyze characteristics of area and volume, matching, attributes, and patterns.

12. Course prerequisite(s) or co-requisite(s): Accuplacer scores/ Other courses

Prerequisite(s):

Co-requisite:

13. **Course Materials** (Recommended course materials and resources. List all that apply, e.g. textbooks, workbooks, study guides, lab manuals, videos, guest lecturers).

- Birchbark House
- CIRCLES Program
- <https://intersectingart.umn.edu/?lesson/30>
- <http://www.uwosh.edu/coehs/cmagproject/index.htm>

14. **Course Content** (Provide an outline of major topics covered in course)

Science topics:

- Geo-thermal dynamics - How circular design saves energy and prevents heat loss
- Dendrological principles of woodland natural resources - Identifying and harvesting renewable plants and brush

Technology Topics:

- 3D Cartesian Software - Exploring curves and arcs in a dome structure
- Google slide presentation

Engineering Topics:

- Environmentally-friendly engineering
- Renewable resource engineering
- Minimal waste designs

Art topics:

- Scale and proportion
- Sketching and Drawing

Mathematics topics:

- Properties of Circles
- Spheres and 3D shapes
- Area and Surface Area
- Volume and Capacity

15. Learning Goals, Outcomes, and Assessment

At FDLTCC we have 4 Competencies Across the Curriculum (CAC) areas. They are as follows:

- A. Information Literacy (the ability to use print and/or non-print tools effectively for the discovery, acquisition, and evaluation of information)
- B. Ability to Communicate (the ability to listen, read, comprehend, and/or deliver information in a variety of formats.)
- C. Problem Solving (the ability to conceptualize, apply, analyze, synthesize, and/or evaluate information to formulate and solve problems.)
- D. Culture (knowledge of Anishinaabe traditions and culture, knowledge of one’s own traditions and culture, knowledge of others’ traditions and cultures, culture of work, culture of academic disciplines and/or respect for global diversity.)

Course Outlines will fulfill the identified competencies.

Upon completion of this course, the student will be able to:

| Learning Outcomes: Learners will | Competencies (CAC) | Cultural Standards |
|---|---------------------------|---------------------------|
| Define in simple terms the properties of circles by designing and constructing a wigwam floor plan. | C | 1 |
| Demonstrate knowledge of Ojibwe culture by creating a presentation on wigwam structures. | C | 5 |
| Demonstrate knowledge of early childhood STEAM instruction by designing a learning activity with a designated outcome (competency). | A | 2 |

| | | |
|--|---|---|
| Create problem solving situations for children to explore and investigate. | C | 4 |
|--|---|---|

WINHEC Cultural Standards:

1. **GIKENDAASOWIN – *Knowing knowledge*:** To develop human beings who value knowledge, learning, and critical thinking and are able to effectively use the language, knowledge, and skills central to an Ojibwe-Anishinaabe way of knowing.
2. **GWAYAKWAADIZIWIN – *Living a balanced way*:** To develop balanced human beings who are reflective, informed learners who understand the interrelatedness of human society and the natural environment, recognize the importance of living in harmony with creation, and are able to apply a systems approach to understanding and deciding on a course of action.
3. **ZOONGIDE'EWIN – *Strong hearted*:** To increase the students’ capacity to live and walk with a strong heart, humble and open to new ideas and courageous enough to confront the accepted truths of history and society.
4. **AANGWAAMIZIWIN – *Diligence and caution*:** To develop students’ capacity to proceed carefully, after identifying, discussing, and reflecting on the logical and ethical dimensions of political, social, and personal life.
5. **DEBWEWIN – *Honesty and integrity*:** To increase students’ capacity to think and act with honesty and integrity as they understand and face the realities of increasingly interdependent nations and people
6. **ZAAGI' IDIWIN – *Loving and Caring*:** To encourage students' acceptance of the diversity within their school, community, and environment by developing healthy, caring relationships built on respect for all.
7. **ZHAWENINDIWIN – *Compassion*:** To expand students' knowledge of the human condition and human cultures and the importance of compassion especially in relation to behavior, ideas, and values expressed in the works of human imagination and thought.

16. **Minnesota Transfer Curriculum (MnTC):** List which goal area(s) – up to two – this course fulfills.

See www.mntransfer.org

Goal Area(s): _____

Provide the specific learning outcomes as listed on the mntransfer.org website that pertain to this course.

17. Are there any additional licensing/certification requirements involved?

 X Yes _____ No

Minnesota Professional Education License and Standards Board

A (5) understand how to integrate curriculum across subject areas in developmentally appropriate ways

D (2) selection, design, and use of appropriate and engaging instructional strategies, activities, and materials, including:

(a) multisensory techniques to ensure that students learn concepts about print including how to recognize and write letters;

- (b) teaching vocabulary using a range of instructional activities to extend students' understanding of words; and
- (c) teaching comprehension skills and strategies, including opportunities for guided and independent work

H (1) concepts of mathematical patterns, relations, and functions, including the importance of number and geometric patterns in mathematics and the importance of the educational link between primary school activities with patterns and the later conceptual development of important ideas related to functions and be able to:

- (a) identify and justify observed patterns;
- (b) generate patterns to demonstrate a variety of relationships; and
- (c) relate patterns in one strand of mathematics to patterns across the discipline

I (1) tools of inquiry and problem solving

J (5) know and apply the fundamental concepts and principles of physical science concerning properties of and changes in matter; position, motion, and force; light, heat, electricity, and magnetism; and kinds of and ways to transfer energy;

National Professional Standards and Competencies for Early Childhood Educators

1. **d.** Using this multidimensional knowledge (developmental period of early childhood, individual child, context of development, and multiple social identities (race, language, culture, class, gender and others)) to make evidence-based decisions
2. **c.** Engaging as partners with families in young children's development and learning
3. **c.** Practicing responsible assessment that is developmentally, culturally, and linguistically appropriate to document developmental progress and promote positive outcomes for each child
4. **b.** Using knowledge of differentiated instruction in early learning settings.
4. **C.** Using a broad repertoire of developmentally appropriate, culturally and linguistically relevant and evidence-based teaching approaches that reflect universal design for learning principles.

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