



# North Central Michigan College

## Master Course Syllabus

### PART 1:

Course Name: Survey of Glass Techniques I

Course Number: ARTS 230

Credit Hrs. 3

Lecture Hrs. 1

Lab Hrs. 3

Clinical Hrs. 0

Variable Hrs. 0

Total Hours of Instruction: 3

Total Contact Hours: 52.8

*(Total Contact hour's formula: (lecture hrs. + lab hrs. + clinical hrs) x 17.6)*

#### Course Description:

A hands-on overview of basic glass forming techniques. Students will experience torch work, kiln work and glass blowing.

Prerequisite (s): None

Co-requisite (s): None

#### Course Objectives:

By the end of this course the student should be able to:

- Design and execute one glass project in the following techniques: fusing/slumping, casting, torch work, glassblowing, and cold work finishing.
- Define the following terms - thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, compatibility.
- Apply the scientific concepts of thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, and compatibility to produce finished glass projects.
- Develop a timeline of the history of glass and understand the links shared by Art, Science, and History.

Reasonable accommodations can be provided for students with documented disabilities. Please contact Learning Support Services to arrange for these (231)348-6687 or (231)348-6817, Room 533 SCRC.



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### PART 2:

#### Lumina DQP outcomes and linked course objectives

(Please identify all Lumina DQP outcomes supported by this course, including the complete language of each outcome as shown on Part 3 of this syllabus. Under each Lumina DQP outcome, please list any course objectives that support the prior DQP outcome.)

Lumina DQP Outcome 1: Describes the scope and principal features of the field of study, citing at least some of its core theories and practices, and offers a similar explication of at least one related field.

- Design and execute one glass project in the following techniques: fusing/slumping, casting, torch work, glassblowing, and cold work finishing.
- Apply the scientific concepts of thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, and compatibility to produce finished glass projects.
- Develop a timeline of the history of glass and understand the links shared by Art, Science, and History.

Lumina DQP Outcome 2: Illustrates contemporary terminology used in the field.

- Design and execute one glass project in the following techniques: fusing/slumping, casting, torch work, glassblowing, and cold work finishing.
- Define the following terms - thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, compatibility.
- Apply the scientific concepts of thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, and compatibility to produce finished glass projects.

Lumina DQP Outcome 3: Generates substantially error-free products, reconstructions, data, juried exhibits or performances as appropriate to the field.

- Design and execute one glass project in the following techniques: fusing/slumping, casting, torch work, glassblowing, and cold work finishing.
- Apply the scientific concepts of thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, and compatibility to produce finished glass projects.

Lumina DQP Outcome 6: Illustrates core concepts of the field while executing analytical, practical or creative tasks.

- Design and execute one glass project in the following techniques: fusing/slumping, casting, torch work, glassblowing, and cold work finishing.
- Apply the scientific concepts of thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, and compatibility to produce finished glass projects.

Lumina DQP Outcome 7: Selects and applies recognized methods of the field in interpreting characteristic discipline-based problems.

- Design and execute one glass project in the following techniques: fusing/slumping, casting, torch work, glassblowing, and cold work finishing.
- Apply the scientific concepts of thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, and compatibility to produce finished glass projects.

Lumina DQP Outcome 10: Identifies, categorizes and distinguishes among elements of ideas, concepts, theories and/or practical approaches to standard problems.

- Design and execute one glass project in the following techniques: fusing/slumping, casting, torch work, glassblowing, and cold work finishing.
- Apply the scientific concepts of thermal stress, firing schedule, glass recipe, annealing and annealing schedule, coefficients of expansion, and compatibility to produce finished glass projects.
- Develop a timeline of the history of glass and understand the links shared by Art, Science, and History.



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Lumina DQP Outcome 11: Identifies, categorizes, evaluates and cites multiple information resources necessary to engage in projects, papers or performance in his or her program.

- Design and execute one glass project in the following techniques: fusing/slumping, casting, torch work, glassblowing, and cold work finishing.



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## **Suggested Methods of Instruction:**

Lecture, slide lecture, studio demonstrations and hands-on experience of methods and materials.

## **Suggested Methods of Assessment and Evaluation:**

Written test, critiques of projects

## **Adopted Text at Time of Course Adoption/Revision:**

Kiln Firing Glass – Glass Fusing Book 1 by Lundstrom & Schwoerer.

## **Topics Covered During the Semester:**

*Sequence of topics and time allowance are at the discretion of the instructor*

- Week 1: Intro/Syllabus/Studio safety and use/Tools and equipment  
Introduction to properties of glass & glass firing in kiln and furnace. Paint & Fire Glass.
- Week 2: Cutting, Embossing & Fusing
- Week 3: Fusing & Slumping
- Week 4: Glassblowing & Torchworking
- Week 5: Glassblowing, Casting & Torchworking
- Week 6: Slumping & Fusing
- Week 7: Fusing & Frit
- Week 8: Midterm Exam & Midterm Critique
- Week 9: Fusing & Torchworking
- Week 10: Fusing & Torchworking
- Week 11: Fusing & Torchworking
- Week 12: Final Fusing Designs
- Week 13: Fusing
- Week 14: Final Fusing
- Week 15: Final Exam & Final Critique
- Week 16: Final class discussion & wrap-up

Section 1 & Section 2 approved by CRDAP on: 03 25 14

Section 2 approved by AD:

Date:

Section 2 approved by CRDAP Chair:

Date:



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## **PART 3:**

Use this reference sheet in Part 2 of Master Course Syllabus

### Specialized Knowledge

1. Describes the scope and principal features of the field of study, citing at least some of its core theories and practices, and offers a similar explication of at least one related field.
2. Illustrates contemporary terminology used in the field.
3. Generates substantially error-free products, reconstructions, data, juried exhibits or performances as appropriate to the field.

### Broad Integrative Knowledge

4. Describes how existing knowledge or practice is advanced, tested and revised
5. Describes and examines a range of perspectives on key debates and their significance both within the field and in society.
6. Illustrates core concepts of the field while executing analytical, practical or creative tasks.
7. Selects and applies recognized methods of the field in interpreting characteristic discipline-based problems.
8. Assembles evidence relevant to characteristic problems in the field, describes the significance of the evidence, and uses the evidence in analysis of these problems.
9. Describes the ways in which at least two disciplines define, address and interpret the importance of a contemporary challenge or problem in science, the arts, society, human services, economic life or technology.

### Intellectual Skills – Analytic Inquiry

10. Identifies, categorizes and distinguishes among elements of ideas, concepts, theories and/or practical approaches to standard problems.

### Intellectual Skills – Use of Information Resources

11. Identifies, categorizes, evaluates and cites multiple information resources necessary to engage in projects, papers or performance in his or her program.

### Intellectual Skills – Engaging Diverse Perspectives

12. Describes how knowledge from different cultural perspectives would affect his or her interpretations of prominent problems in politics, society, the arts and/or global relations.

### Intellectual Skills – Communication Fluency

13. Presents accurate calculations and symbolic operations, and explains how such calculations and operations are used in either his or her specific field of study or in interpreting social and economic trends.
14. Presents substantially error-free prose in both argumentative and narrative forms to general and specialized audiences.

### Applied Learning

15. Describes in writing at least one substantial case in which knowledge and skills acquired in academic settings are applied to a challenge in a non-academic setting; applies that learning to the question; and analyzes at least one significant concept or method related to his or her course of study in light of learning outside the classroom.
16. Locates, gathers and organizes evidence on an assigned research topic addressing a course-related question or a question of practice in a work or community setting; offers and examines competing hypotheses in answering the question.

### Civic Learning

17. Describes his or her own civic and cultural background, including its origins and development, assumptions, and predispositions.
18. Describes diverse positions, historical and contemporary, on selected democratic values or practices, and presents his or her own position on a specific problem where one or more of these values or practices are involved.
19. Takes an active role in a community context (work, service, co-curricular activities, etc.), and examines the civic issues encountered and the insights gained from the community experience.

The Degree Qualifications Profile was adopted by CRDAP: April 11, 2012