

**LAKE SUPERIOR COLLEGE
COURSE SYLLABUS
FALL SEMESTER 2006**

Course No.: ART 1140-01
Course Title: Ceramics III
Credits/Clock Hours: 3/5

Instructor: Dorian Beauileu
Studio: 733-5972
Office: 725-7715
Home: 724-3059.
E-mail: d.beaulieu@lsc.edu

Prerequisites: ART 1139 or Instructor's consent

Books Required: None

Class Hours: Tuesday & Thursday 11:00 a.m. – 1:50 p.m.
 Room: Fine Arts Building A1103
 Holidays & no classes: Thursday, November 23, 2006.

Office Hours: Monday & Wednesday 11:30 a.m. – 12:30 p.m.
 Tuesday & Thursday 2:00 – 3:00 p.m.
 In Office/Room: Fine Arts Building A2200 or A1103

Course Description:

Advanced-level ceramic hand building, wheel throwing, decorating, glazing, and firing methods. \$60.00 material fee. Meets MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts

Course Outcomes:

Students will be able to:

COURSE OUTCOMES	ASSESSMENT METHODS
1. Demonstrate an advanced understanding of the diversity of style, technique, and philosophy involved in ceramic works of art.	Evaluation of completed work, verbal & written presentation
2. Demonstrate an advanced ability to recognize authentic self-expression and the influence personal and cultural values have on it.	Evaluation of completed work
3. Demonstrate advanced level ability to know, understand, and apply specific criteria for making aesthetic judgments in a critique setting.	Evaluation of verbal and written presentation
4. Demonstrate advanced ability to produce ceramic forms with a particular composition, subject matter, expressive character or expressive content.	Evaluation of completed work
5. Demonstrate advanced knowledge of ceramic media, tools, techniques, forming processes, clay and glaze chemistry and kiln firing.	Evaluation of completed work and participation

Use of Media and Resources:

Videos
Slides.

Recommended Supplies:

Pottery Tool Kit.
Work Clothing.

Course Goals:

1. Understand the unique characteristics of the raw ware, green ware, bisque ware and glaze ware stages demonstrating the ability to anticipate design transformations from stage to stage.
2. Understanding of concepts derived from the principles and elements of design and their application to 3-dimensional form.
3. Recognize how the creative process develops personal wellness by reinforcing an individual's self-concept, self-esteem, self-awareness, awareness of others confidence, motivation, inner satisfaction, positive productivity and problem-solving activities.
4. Demonstrate initiative in cultivating artistic growth through exploration of new techniques, ceramic processes, aesthetic philosophies and personal experimentation.
5. Demonstrate the ability to assimilate information from feelings, concepts and environment and expressively synthesize it into visual content.
6. Recognize that art is a visual form of communication which employs symbolic language systems that have cross-culture meaning.
7. Demonstrate ability to perceive and respond to aspects of ceramic art by recognizing and describing its subject matter elements.
8. Demonstrate ability to go beyond the recognition of subject matter to the perception and description of formal qualities and expressive content.
9. Demonstrate ability to value ceramic art as an important realm of human experience by being effectively oriented to it and participating in activities related to it.
10. Demonstrate ability to express reasonably sophisticated conceptions about and positive attitudes towards important ceramicists and ceramic work.
11. Demonstrate ability to produce ceramic forms with a particular composition, subject matter, expressive character, or expressive content.
12. Demonstrate ability to produce ceramic works that contain various visual conceptions.
13. Demonstrate knowledge about the ceramic arts by recognizing major figures and works in the history of ceramics and understanding their significance.
14. Demonstrate ability to recognize styles of ceramic work, understand the concept of style and analyze works on the basis of style.
15. Demonstrate knowledge of the history of man's ceramic activity and understand the relation of one style or period to other styles or periods.
16. Demonstrate ability to distinguish between factors of a ceramic work that relate principally to the personal style of the artist and factors that relate to the stylistic period or entire age.
17. Demonstrate ability to know and recognize the relationships that exist between ceramics, other art media and disciplines in the humanities during a given time period.
18. Demonstrate ability to know, understand and apply specific criteria for making aesthetic judgments in a critique setting.
19. Demonstrate knowledge about the unique properties of ceramic materials and methods used in clay and glaze formulation.
20. Demonstrate value for human expression and how it enriches cultural awareness, develops human diversity, expands intellectual ability, reinforces an appreciation for the aesthetic and enhances understanding of self and others.

Evaluative Techniques:

In grading your work and performance, I will be weighing your:

- A. Diligence in developing aesthetic problem solving skills.
- B. Efforts made in exploring new ideas and concepts.
- C. Efforts made to enhance personal expression.
- D. Openness to experimentation with a willingness to make changes.
- E. Attentiveness to and application of course content.
- F. Level of technical achievement and ability.
- G. Degree of personal creative and aesthetic development.
- H. Care and thoughtfulness taken in craftsmanship.
- I. Ability to focus on and complete each stage in the process of achieving project synthesis.
- J. Ability to articulate a works successful or unsuccessful aspects and provide ideas for possible solutions.
- K. Ability to decipher and discuss the use of formal elements by critically evaluating their visual effectiveness.
- L. Ability to verbally express personal opinions, feelings and objectives during critiques.

Course Content:

1. Advanced understanding of ceramic aesthetics, processes and properties.
2. Ceramic hand-building and wheel throwing construction techniques.
3. Glaze chemistry and clay making.
4. Kiln operation.

Student Responsibilities:

1. Students are expected to have regular attendance.
2. Students are expected to participate in group critics, class discussions, group projects and field trips.
3. Students are expected to complete all assignments and studies and hand them in on the assigned due date.
4. Students are expected to participate in all facets of the student art exhibit.
5. Students are expected to exercise care and craftsmanship with their ceramic projects.
6. Students are expected to clean their work area and return all materials and tools to there proper location.
7. Students are expected to observe, anticipate and adhere to all dates and deadlines regarding final day to work with raw clay, final day to glaze and final exam times where all completed assignments need to be grouped for grading.
8. Students are expected to follow studio policies to ensure a positive and functional working environment.
9. Students are expected to spend additional out of class work and study time. A minimum of 4 clock hours a week .
10. Students are expected to remove all their personal property from the studio by the end of the semester.
11. Students may be required to participate in college-wide assessment activities as part of this course. Such activities may include course or instructor evaluations, testing or special assignments.

12. Charges of academic misconduct will be brought to the attention of the student and disciplinary actions will be taken. See the Lake Superior College Student Code of Conduct, Policy III.6, Part 8 for further details.
13. Individuals who have a disability, either permanent or temporary, which might affect their ability to perform in this class are encouraged to inform the instructor and the College Disabilities Coordinator, 733-7650, E2114, at the start of the semester.

Lake Superior College Non –attendance Policy:

Students are expected to attend classes regularly and are advised to officially withdraw from courses if they should stop attending. The college's Non-attendance Policy requires instructors to report students who are not attending class(es), resulting in the automatic issuing of an "FN" (failure for non-attendance) grade and re-evaluation and possible repayment of financial aid. Please refer to the LSC Policy 3.17.4 for additional information at:

<http://www.lsc.mnscu.edu/policy/nonattend.htm>

Failure to sign the attendance list for a given class period is counted as non-attendance. Absences due to emergencies and health issues require a student to notify the instructor for each class missed.

COURSE REQUIREMENTS:

1. Regular participation is required.
2. Completion of all assignments.
 - I. Clay Construction Methods:
Choose One of the Four Categories:
Category 1, 10 hand built forms.
Category 2, 5 hand built and 30 wheel thrown forms.
Category 3, 2 hand built and 48 wheel thrown forms. (5 Forms with handles)
Category 4, 60 wheel thrown forms. (5 Forms with handles)
 - II. Participation in group critiques:
Critiques are designed to critically analyze the visual elements of a work of art. It is extremely helpful in clarifying personal creative objectives, understanding that possible visual alternatives exist, creating new ideas for future works and developing the ability to decipher and explain a work's merits and demerits.
 - III. Participation in and completion of all other course related activities:
 - A. 5 Glaze tests or 10,000 grams of glaze. (Cone 10 reduction glazes)
 - B. Field trips.
 - C. Exhibit participation.
 - D. Sketch books (20 drawings)
 - E. Producing a ceramic form at least 24" in height.
 - F. Operation of clay mixer to produce clay.
 - G. Firing procedure.

FIELD TRIPS AND WORKSHOPS:

T.B.A.

GRADING:

Course letter grades: Course grades are determined by averaging according to the following grade distribution.

		<u>Grade Calculation</u>
Construction Methods	60 Points	
Critiques	10 Points	90-100 Points = A
Glaze Making	5 Points	80-90 Points = B
Exhibit Participation	10 Points	70-80 Points = C
24" Form	5 Points	60-70 Points = D
Sketch book (20 Drawings)	5 Points	0-60 Points = F
Kiln participation	5 Points (Ex/credit 20 point limit)	

DATES AND DEADLINES:

Last day to work with raw clay: Wednesday, November 22, 2006.

Last day to glaze work: Saturday, December 9, 2006.

Student art exhibit: Monday, December 11 to Wednesday, December 13, 2006.

Studio clean-up day: 10 a.m. – 3p.m. Saturday, December 23, 2006.

Critiques: Thursday, September 21, 2006.

Thursday, October 19, 2006.

Thursday, November 16, 2006.

Thursday, December 7, 2006.

FINAL GRADING ON ASSIGNED WORK: Tuesday, December 19, 2006

*All ceramic work must be grouped together with your exhibit participation form by 11:00 a.m. Grading will be complete at 1:50 p.m. Please remove all your work and belongings from the ceramics studio by Friday, December 22, 2006. Work left after December 22 will be discarded.

**STONEWARE
CONE 10
GLAZE FORMULA'S**

<p><u>RUTILE BLUE</u> Dolomite 16 Custer Feldspar 30 Whiting 11 Kaolin 17 Flint 26 Rutile 8</p>	<p><u>MASHICO STONE</u> Red Art Clay 70 Custer Feldspar 20 Bone Ash 4 Dolomite 6 Red Iron Oxide 3 Kaolin 3 Flint 10</p>	<p><u>TEMOKU</u> Custer Feldspar 3520 Flint 1760 Whiting 1280 Spodumene 160 Kaolin 768 Red Iron Oxide 800</p>
<p><u>ORANGE STONEY</u> Soda Feldspar 34 Kaolin 20 Dolomite 17 Talc (Glaze grade) 11 Spodumene 7 Barium Carbonate 5 Zircopax 5</p>	<p><u>BEAULIEU'S BLUE</u> Dolomite 40 Custer Feldspar 5 Spodumene 5 Kentucky Ball Clay 45 Flint 5 Cobalt Oxide 2 Manganese Dioxid 2</p>	<p><u>BLUE CELADON</u> Nepheline Syenite 21. Barium Carbonate 9. Zinc Oxide 28.5 Dolomite 4.2 Whiting 5.7 Kaolin 4.5 Flint 33. Red Iron Oxide 1.5</p>
<p><u>MASON RED</u> Custer Feldspar 320 Flint 40 Kentucky Ball Clay 30 Dolomite 50 Bone Ash 90 Red Iron Oxide 40</p>	<p><u>KEN OLSEN'S CLEAR</u> Custer Feldspar 16 Flint 12 Whiting 12 Zinc Oxide 2 Kaolin 8</p>	<p><u>GRITTNER'S SHINO</u> Spodumene 30 Soda Feldspar 30 Nepheline Syenite 30 Kaolin 10 Soda Ash 10</p>

**STONEWARE
CONE 10
GLAZE FORMULA'S**

<p><u>PLUM GREEN</u></p> <p>Nepheline Syenite 3156 Kentucky Ball Clay 1290 Flint 318 Whiting 630 Gerstley Borate 318 Copper Carbonate 288</p>	<p><u>WALLY'S WHITE</u></p> <p>Cornwall Stone 3600 Dolomite 1200 Kaolin 1200</p>	<p><u>WOO'S BLUE</u></p> <p>Custer Feldspar 42 Flint 27 Kentucky Ball Clay 13 Whiting 18 Red Iron Oxide 4 Rutile 4 Bentonite 1</p>
<p><u>NUKA WHITE</u></p> <p>Custer Feldspar 3750 Nepheline Syenite 500 Hardwood Ash 400 Flint 200 Kaolin 250 Opax 50 Bentonite 50</p>	<p><u>EGGSHELL</u></p> <p>Custer Feldspar 3024 Dolomite 1000 Whiting 160 Kaolin 1400 Manganese Dioxide 280</p>	<p><u>JEFF'S SHINO</u></p> <p>Nepheline Syenite 4500 Spodumene 1500 Soda Feldspar 1000 Soda Ash 400 Kentucky Ball Clay 1500 Kaolin 1000</p>
<p><u>MIKE'S SHINO</u></p> <p>Nepheline Syenite 3600 Soda Ash 450 Cryolite 600 Kaolin 1050 Opax 300</p>	<p><u>ZORK</u></p> <p>Custer Feldspar 3360 Kaolin 140 Flint 2100 Whiting 210 Gerstley Borate 700 Dolomite 700 Zinc Oxide 140 Barium Carbonate 350 Tin Oxide 210 Copper Carbonate 70</p>	<p><u>GLOSS TURQUOISE</u></p> <p>Custer Feldspar 5570 Whiting 1000 Kaolin 300 Barium Carbonate 480 Flint 750 Cobalt Carbonate 40 Chromium Oxide 80</p>

**STONEWARE
CONE 10
GLAZE FORMULA'S**

<p><u>NEW TEMOKU</u> Custer Feldspar 3250 Whiting 500 Flint 750 Kaolin 250 Barium Carbonate 500 Red Iron Oxide 350 Gerstley Borate 250</p>	<p><u>CINDY'S CRAWLER ORANGE</u> Spodumene 500 Nepheline Syenite 1100 Kentucky Ball Clay 400</p>	<p><u>BUTTERMILK II</u> Gerstley Borate 787.5 Dolomite 510 Whiting 675 Custer Feldspar 2197.5 Kaolin 510 Talc 1012.5 Flint 1807.5 Zircopax 600</p>
<p><u>AMBER CELADON</u> Albany Slip 2880 Custer Feldspar 1760 Gerstley Borate 240 Wollastonite 1220 Whiting 640 Flint 1220 Kaolin 240 Yellow Ochre 720</p>	<p><u>STONE WHITE</u> Custer Feldspar 3840 Kaolin 2000 Dolomite 1800 Whiting 280</p>	<p><u>BLACK LORETTA</u> Albany Slip 1500 Nepheline Syenite 300 Cobalt Carbonate 200</p>
<p><u>CUSTER YELLOW</u> Custer Feldspar 2510 Dolomite 3160 Whiting 420 Kaolin 3220 Flint 660</p>	<p><u>CLEAR</u> Custer Feldspar 2600 Flint 1950 Whiting 1950 Kentucky Ball Clay 1300 Zinc Oxide 325</p>	<p><u>C. WALINSKI</u> Nepheline Syenite 2750 Barium Carbonate 1100 Kaolin 400 Talc 750 Dolomite 500 Zircopax 500 Tin Oxide 150 Red Iron Oxide 150</p>

**STONEWARE
CONE 10
GLAZE FORMULA'S**

<p><u>HEINO BLUE</u></p> <p>Barium Carbonate 2620 Lithium Carbonate 260 Nepheline Syenite 5790 Kentucky Ball Clay 620 Flint 710 Cobalt Carbonate 250 Bentonite 200</p>	<p><u>DRY BLUE BLUE</u></p> <p>Nepheline Syenite 40.0 Barium Carbonate 38.4 Flint 7.5 Kentucky Ball Clay 6.1 Cobalt Carbonate 4.0 Bentonite 1.0</p>	<p><u>STONE BLACK</u></p> <p>Custer Feldspar 2880 Kaolin 2400 Dolomite 1350 Whiting 210 Cobalt Carbonate 120 Red Iron Oxide 465 Manganese Dioxide 175.5</p>
<p><u>OHATI KHAKI</u></p> <p>Custer Feldspar 3520 Flint 1560 Whiting 520 Bone Ash 720 Kaolin 456 Talc 456 Red Iron Oxide 776 Bentonite 80</p>	<p><u>CELADON</u></p> <p>Custer Feldspar 4340 Whiting 1240 Kaolin 560 Flint 1590 Red Iron Oxide 230</p>	<p><u>WARM WHITE</u></p> <p>Nepheline Syenite 3420 Spodumene 480 Bone Ash 900 Kaolin 900 Opax 300</p>
<p><u>CUSHING BLACK</u></p> <p>Albany Slip 65 Nepheline Syenite 10 Barium Carbonate 10 Talc 15 Red Iron Oxide 1 Cobalt Oxide 2 Chromium Oxide 2 Manganese Dioxide 1</p>	<p><u>BAKER BLACK</u></p> <p>Albany Slip 100 Whiting 5 Cobalt Oxide 4</p>	<p><u>MAE'S WONDERFUL WHITE</u></p> <p>Custer Feldspar 2130 Gerstley Borate 1175 Kentucky Ball Clay 730 Flint 360 Dolomite 250 Zircopax 360</p>

**STONEWARE
CONE 10
GLAZE FORMULA'S**

<p style="text-align: center;"><u>Grittner's Blue Celadon</u></p> <p>Custer Feldspar 51 Flint 20.5 Kaolin 4.0 Whiting 6.2 Barium Carbonate 16.5 Bentonite 1.0 Red Iron Oxide 2.0</p>	<p style="text-align: center;"><u>Malcom's Red Shino</u></p> <p>Nepheline Syenite 40.9 Kaolin (EPK) 18.2 Soda Ash 17.3 Ballclay (OM4) 13.8 Soda Feldspar 9.8 Red Art Clay 6.0</p>	<p style="text-align: center;"><u>Bob's Brown</u></p> <p>Custer Feldspar 21 Whiting 36 Ballclay 26 Flint 26 Red Iron Oxide 8</p>
<p style="text-align: center;"><u>Husby's Black</u></p> <p>Alberta Slip 75 Nepheline Syenite 20 Cobalt Carbonate 7</p>	<p style="text-align: center;"><u>Bob's Copper Green</u></p> <p>Cornwall Stone 75 Whiting 18 Colemanite 5 Copper Carbonate 8 Barium Carbonate 10 Bentonite 2</p>	<p style="text-align: center;"><u>Husby's Ash</u></p> <p>Wood Ash (Apple) 60 Cornwall Stone 15 Custer Feldspar 15 Kaolin (EPK) 10</p>
<p style="text-align: center;"><u>Fake Ash Blue</u></p> <p>Alberta Slip 60 Zinc Oxide 20 Kaolin 10 Cobalt Carbonate 3</p>	<p style="text-align: center;"><u>Bisque Slip</u></p> <p>Borax 5 Zircopax 5 Potash Feldspar 20 Ballclay 15 Calcined Kaolin 20 Kaolin (EPK) 15 Flint 20</p>	<p style="text-align: center;"><u>Rhodes 32 with Rutile</u></p> <p>Dolomite 675 Whiting 105 Custer Feldspar 1470 Kentucky Ball Clay 750 Rutile 210</p>

**STONEWARE
CONE 10
GLAZE FORMULA'S**

<p><u>SANDY'S SHINO</u> Nepheline Syenite 350 Spodumene 400 Soda Ash 50 Kaolin 150 Ball Clay 50</p>	<p><u>NAVY & GOLD FLAKES</u> Custer Feldspar 40 Flint 25 Gerstley Borate 10 Dolomite 10 Frit 3110 5 Kaolin 5 Whiting 5 Cobalt Carbonate 2 Red Iron Oxide 2</p>	<p><u>SHINO TEST # 7</u> Nepheline Syenite 40 Spodumene 30 Ball Clay 17 Soda Ash 8 Kaolin 5 Bentonite 2</p>
<p><u>TEMOKU GOLD</u> Cornwall Stone 61 Whiting 8 Gerstley Borate 3 Lithium Carbonate 5.5 Dolomite 7 Flint 5.5 Red Iron Oxide 10</p>	<p><u>SHINO XXX</u> Nepheline Syenite 40.9 Soda Ash 17.3 Kentucky Ball Clay 13.8 Soda Feldspar 9.8 Kaolin 18.2 Redart 6</p>	<p><u>Durango Purple</u> Custer Feldspar 49.75 Flint 25 Whiting 7.96 Gerstley Borate 4.97 Dolomite 4.97 Barium Carbonate 4.97 Zinc Oxide 2.5 Tin Oxide .1 Cobalt Carbonate .25 Copper Carbonate 2</p>
<p><u>RHODES 32</u> Dolomite 675 Whiting 105 Custer Feldspar 1470 KT Ball Clay 750 Rutile 210</p>	<p><u>ANDERSON RANCH PORCELAIN</u> English Grolleg 42 (4 parts) Tile Clay #6 42 (4 parts) Custer Feldspar 30 (3 parts) Flint 20 (2 parts) Pyrophyllite 20 (2 parts) Bentonite 3.5 (.5 parts)</p>	<p><u>STONEWARE CLAY</u> Kentucky Ball Clay 4 parts Cedar Heights Goldart 3 parts Hawthorn Fire clay 2.5 parts Custer Feldspar .5 parts</p>

STONEWARE
CONE 10
GLAZE FORMULA'S

<u>B-35 MAT GREEN</u>		<u>FLAMBE' RED</u>		
<u>CELEDON</u>		Custer Feldspar	42	
Nepheline Syenite	3000	Whiting	8	
Wollastonite	2000	Flint	25	
Gerstley Borate	2000	Kaolin	2	
Ball clay	1000	Gerstley Borate	11	
Barium Carbonate	1000	Dolomite	6	
Zircopax	1000	Barium Carbonate	4	
Copper Carbonate	200	Zinc Oxide	2	
		Tin Oxide	0.8	
		Copper Carbonate	0.4	
		Glaze Rite	4	
<u>MIDNIGHT BLUE</u>				
Custer Feldspar	50			
Flint	20			
Whiting	15			
Kaolin	13			
Dolomite	2			
Cobalt Carbonate	4			

CONE 6-7 CLAY & GLAZE FORMULA'S

<u>STONEWARE CLAY</u> Kentucky Ball Clay 40% Hawthorn Fire Clay 25% Cedar Heights Gold Art 30% Custer Feldspar 5%	<u>OIL SPOT</u> Albany Slip Clay 100 Wood Ash (Sieve 60 mesh) 20 Red Iron Oxide 20 Lithium Carbonate 6	<u>G4 - CLEAR</u> Nepheline Syenite 47 Gerstley Borate 27 Flint 20 Kaolin 5
<u>C-GLAZE</u> Soda Feldspar 20 Nepheline Syenite 20 Whiting 10 Talc 20 Kaolin 10 Flint 20 Bone Ash 20 Rutile 8	<u>SPODUMENE GLAZE</u> Custer Feldspar 52 Spodumene 22 Kaolin 20 Dolomite 20 Whiting 2 Glaze Rite 3 Copper Carbonate 2	<u>B-GLAZE</u> Barium Carbonate 20 Custer Feldspar 40 Kentucky Ball Clay 20 Cornwall Stone 20 Whiting 20 Gerstley Borate 3 Red Iron Oxide 3 Rutile 4
<u>RUNNY BLUE</u> Custer Feldspar 17 Flint 12 Nepheline Syenite 20 Whiting 9 Zinc Oxide 5.5 Kentucky Ball Clay 4 Cobalt Carbonate 1	<u>BRIAN'S WHITE</u> Gerstley Borate 298 Lithium Carbonate 86 Nepheline Syenite 744 Kentucky Ball Clay 426 Flint 446 Zircopax 140	<u>METALLIC BLACK</u> Gerstley Borate 11 Whiting 5 Custer Feldspar 79 Kaolin 5 Cobalt Carbonate 2 Copper Carbonate 4 Manganese Dioxide 4
<u>ROONEY WHITE</u> Nepheline Syenite 87 Dolomite 50 Kentucky Ball Clay 6 Zircopax 16 Glaze Rite 4	<u>STAIN BASE</u> Stain color 5 Gerstley Borate 5 Glaze Rite 1 Soda Feldspar 5	<u>CHOCOLATE BROWN</u> Custer Feldspar 21 Whiting 36 Kentucky Ball Clay 26 Flint 26 Red Iron Oxide 12
<u>TRUE CLEAR</u> Barium Carbonate 94 Nepheline Syenite 4636 Gerstley Borate 2700 Flint 2030 Kaolin 540	<u>FLOATING GREEN</u> Nepheline Syenite 30 Gerstley Borate 21 Whiting 8 Kaolin 10 Flint 31 Chromium Oxide 2 Cobalt Oxide 1	<u>SUGAR CANE WHITE</u> Nepheline Syenite 53 Dolomite 10 Barium Carbonate 6 Kaolin 6 Talc 5 Flint 15 Glaze Rite 4

RAKU CLAY & GLAZE FORMULA'S

<u>White Raku clay</u> Kentucky ball clay 30 Cedar heights goldart 20 Hawthorn fire clay 35 Grog (20 mesh) 15	<u>My Blue Heaven</u> Gerstley Borate 80 Custer Feldspar 20 Cobalt Carbonate 1.5	<u>Wonder Glaze II</u> Gerstley Borate 80 Custer Feldspar 20 Copper Carbonate 3 Cobalt Carbonate 1
<u>Fat White</u> Frit 3134 750 Flint 45 EPK Kaolin 75 Super Pax 75 Glaze Rite 23	<u>Wonder Glaze</u> Gerstley Borate 80 Custer Feldspar 20 Copper Carbonate 2	<u>Clear crackle</u> Gerstley Borate 80 Custer Feldspar 20
<u>Metallic Black</u> Gerstley Borate 914 Nepheline Syenite 1476 Barium Carbonate 1068 Lithium Carbonate 582 Flint 1476 Kaolin 486 Manganese Dioxide 600 Red/Blk Copper Ox 120 Black Iron Oxide 240 Cobalt Carbonate 120	<u>Oil Slick Patina</u> Gerstley Borate 80 Nepheline Syenite 20 Bone Ash 20 Cobalt Carbonate 3 Copper Carbonate 7 Apply thin to medium	<u>Rainbow Patina</u> Gerstley Borate 74.4 Bone Ash 18.6 Cobalt Carbonate 2.3 Copper Carbonate 4.7 Apply thin to medium

<p style="text-align: center;">Dark Celadon</p> <p>Potash Feldspar-----60.00 Flint-----45.00 Whiting-----30.00 Kaolin-----12.00 Iron Oxide-----<u>4.60</u></p> <p style="text-align: right;">151.60</p>	<p style="text-align: center;">Dolomite</p> <p>Potash Feldspar-----35.00 Flint-----30.00 Whiting-----10.00 Dolomite-----20.00 Ball Clay-----<u>5.00</u></p> <p style="text-align: right;">100.00</p>	<p style="text-align: center;">Gloss Turquoise</p> <p>Custer Feldspar----5570.00 Whiting-----1000.00 EPK-----300.00 Barium Carbonate---480.00 Zinc Oxide-----200.00 Flint-----750.00 Cobalt Carbonate----40.00 Chrome Oxide-----<u>80.00</u></p> <p style="text-align: right;">8420.00</p>
<p style="text-align: center;">Gloss White</p> <p>Whiting-----19.00 Custer Feldspar-----50.00 EPK-----12.00 Flint-----<u>19.00</u></p> <p style="text-align: right;">100.00</p>	<p style="text-align: center;">Green Gloss</p> <p>Cornwall Stone-----75.00 Whiting-----18.00 Colemanite-----5.00 Copper Carbonate----10.00 Barium Carbonate----10.00 Bentonite-----<u>2.00</u></p> <p style="text-align: right;">120.00</p>	<p style="text-align: center;">Haystack Orange</p> <p>Potash Feldspar----1144.00 Whiting-----500.00 Cornwall Stone-----500.00 Ball Clay-----270.00 Calcined Kaolin-----180.00 Zinc Oxide-----90.00 Iron Oxide-----180.00 Rutile-----<u>120.00</u></p> <p style="text-align: right;">2984.00</p>
<p style="text-align: center;">Kook's Blue</p> <p>Custer Feldspar----3360.00 EPK-----140.00 Flint-----2100.00 Whiting-----210.00 Colemanite-----700.00 Dolomite-----700.00 Zinc Oxide-----140.00 Barium Carbonate---350.00 Tin Oxide-----210.00 Copper Carbonate----70.00 Cobalt Carbonate----<u>100.00</u></p> <p style="text-align: right;">8080.00</p>	<p style="text-align: center;">Mason's Red</p> <p>Potash Feldspar----2850.00 Flint-----350.00 Ball Clay-----250.00 Dolomite-----450.00 Bone Ash-----750.00 Iron Oxide-----<u>350.00</u></p> <p style="text-align: right;">5000.00</p>	<p style="text-align: center;">Mustard</p> <p>Potash Feldspar-----6.50 Flint-----6.50 Kaolin-----14.50 Whiting-----16.50 Dolomite-----8.50 Nepheline Syenite----44.50 Yellow Ochre-----<u>3.50</u></p> <p style="text-align: right;">100.50</p>

<p style="text-align: center;">Ohati Kaki</p> <p>Custer Feldspar-----3520.00 Flint-----1560.00 Whiting-----520.00 Bone Ash-----720.00 EPK-----456.00 Talc-----456.00 Red Iron Oxide-----776.00 Bentonite-----80.00 8088.00</p>	<p style="text-align: center;">Old Gold</p> <p>Potash Feldspar-----23.00 Flint-----6.00 Whiting-----4.00 Kaolin-----32.00 Dolomite-----30.00 Rutile-----5.00 100.00</p>	<p style="text-align: center;">Opalescence</p> <p>Potash Feldspar-----66.00 Flint-----40.00 Kaolin-----34.00 Rutile-----17.00 Talc-----23.00 Whiting-----42.00 222.00</p>
<p style="text-align: center;">Patty's Light Blue</p> <p>Soda Feldspar-----2250.00 Flint-----1250.00 Whiting-----750.00 Talc-----750.00 Zinc-----750.00 Cobalt Carbonate-----12.50 Rutile-----200.00 5962.50</p>	<p style="text-align: center;">Peach Bloom</p> <p>Flint-----302.00 Dolomite-----92.00 Colemanite-----124.00 Nepheline Syenite---200.00 Copper Carbonate-----7.20 Yellow Ochre-----7.20 Tin Oxide-----7.20 739.60</p>	<p style="text-align: center;">Penland</p> <p>Potash Feldspar-----2250.00 EPK-----936.00 Whiting-----858.00 Talc-----390.00 Nickel-----184.00 Flint-----156.00 Cobalt Carbonate-----46.00 4820.00</p>
<p style="text-align: center;">Potash Feldspar Stone Talc</p> <p>Flint-----250.00 Zinc Oxide-----250.00 Ball Clay-----500.00 Magnesium Carbonate---50.00 Whiting-----450.00 Talc-----1200.00 Nepheline Syenite---700.00 Cornwall Stone-----1600.00 5000.00</p>	<p style="text-align: center;">Rhodes 32</p> <p>Potash Feldspar-----2195.00 EPK-----1255.00 Dolomite-----1120.00 Whiting-----125.00 4695.00</p>	<p style="text-align: center;">Rhodes Magnesia</p> <p>Potash Feldspar-----3600.00 Flint-----1600.00 Talc-----1200.00 Colemanite-----1040.00 Dolomite-----560.00 Kaolin-----400.00 8400.00</p>
<p style="text-align: center;">Sage Brush</p> <p>Barium Carbonate-----0.44 Bone Ash-----1.11 Dolomite-----2.05 Gerstley Borate-----5.65 Whiting-----7.75 Custer Feldspar-----51.38 Nepheline Syenite---2.66 Soda Feldspar-----0.89 Ball Clay-----2.16 EPK-----10.19 Flint-----15.72 Red Iron Oxide-----2.44 102.44</p>	<p style="text-align: center;">Simply Red #5</p> <p>Gerstley Borate-----9.00 Talc-----6.00 Whiting-----12.00 Custer Feldspar-----45.00 Bentonite-----2.50 EPK-----3.00 Flint-----22.50 Tin Oxide-----2.00 Copper Carbonate-----0.80 102.80</p>	<p style="text-align: center;">Smooth Shinto Rock</p> <p>Whiting-----19.00 Custer Feldspar-----50.00 EPK-----12.00 Flint-----19.00 Zircopax-----25.00 125.00</p>

Spotted Tooth	Stone Black	Stone Turquoise
Whiting-----10.00 Custer Feldspar-----60.00 Flint-----5.00 EPK-----20.00 Zircopax----- <u>5.00</u> 100.00	Custer Feldspar-----2880.00 EPK-----2400.00 Dolomite-----1350.00 Whiting-----210.00 Cobalt Carbonate----120.00 Red Iron Oxide-----465.00 Manganese Dioxide- <u>175.50</u> 7600.50	Custer Feldspar-----3840.00 EPK-----2400.00 Dolomite-----1800.00 Whiting-----280.00 Cobalt Carbonate----80.00 Green Chrome Oxide- <u>78.00</u> 8478.00
Stone White	Sunshine Celadon Blue	Temmoku
Custer Feldspar-----3840.00 EPK-----200.00 Dolomite-----1800.00 Whiting----- <u>280.00</u> 6120.00	Albany Slip-----53.40 Flint-----13.30 Soda Feldspar-----13.30 Whiting-----13.30 Bone Ash----- <u>6.70</u> 100.00	Custer Feldspar-----3250.00 Whiting-----500.00 Flint-----750.00 EPK-----250.00 Barium Carbonate---500.00 Red Iron Oxide-----350.00 Colemanite----- <u>250.00</u> 5850.00

HIBBING COMMUNITY COLLEGE

CONE 10 STONEWARE GLAZE FORMULA'S

Temoku	UWS Carbon Trap	White Crackle
Custer Feldspar-----80.00	Soda Ash-----4.00	Nepheline Syenite-----45.00
Flint-----60.00	Kona F-4 Feldspar----18.00	Dolomite-----7.00
Whiting-----40.00	Nepheline Syenite---45.00	Talc-----15.00
Ball Clay-----20.00	Spodumene-----15.00	EPK-----5.00
Iron Oxide----- <u>18.00</u>	EPK-----3.00	Flint----- <u>20.00</u>
218.00	Ball Clay----- <u>15.00</u>	92.00
Woo's Blue Brown	Zork	
Potash Feldspar-----1260.00	Custer Feldspar-----3360.00	
Flint-----810.00	EPK-----140.00	
Whiting-----540.00	Flint-----2100.00	
Ball Clay-----390.00	Whiting-----210.00	
Red Iron Oxide-----120.00	Colemanite-----700.00	
Rutile----- <u>120.00</u>	Dolomite-----700.00	
3240.00	Zinc Oxide-----140.00	
	Barium Carbonate---350.00	
	Tin Oxide-----210.00	
	Copper Carbonate---- <u>70.00</u>	
	7980.00	

<p style="text-align: center;">Albany Tin</p> <p>Nepheline Syenite----65.70 Dolomite-----12.40 Ball Clay-----4.10 Tin Oxide-----6.60 Albany Slip-----8.70 Bentonite-----<u>2.50</u></p> <p style="text-align: right;">100.00</p>	<p style="text-align: center;">Albany Blue</p> <p>Soda Feldspar-----13.30 Albany Slip-----53.40 Bone Ash-----6.70 Whiting-----13.30 Flint-----13.30 Cobalt Carbonate-----<u>1.00</u></p> <p style="text-align: right;">101.00</p>	<p style="text-align: center;">Alfred Matt</p> <p>Soda Feldspar-----10.00 Dolomite-----12.40 Kaolin-----13.20 Flint-----2.80 Whiting-----<u>1.60</u></p> <p style="text-align: right;">40.00</p>
<p style="text-align: center;">Black Bird Blue</p> <p>Talc-----10.00 Whiting-----18.00 Custer Feldspar-----27.00 Albany Slip Clay-----13.00 Edger Plastic Kaolin- 15.00 Flint-----<u>17.00</u></p> <p style="text-align: right;">100.00</p>	<p style="text-align: center;">Binn's Clear</p> <p>Potash Feldspar-----400.00 Flint-----300.00 Whiting-----300.00 Ball Clay-----150.00 Zinc Oxide-----<u>50.00</u></p> <p style="text-align: right;">1200.00</p>	<p style="text-align: center;">Matt Black</p> <p>Albany Slip-----75.00 Nepheline Syenite---20.00 Cobalt Carbonate-----<u>7.00</u></p> <p style="text-align: right;">102.00</p>
<p style="text-align: center;">Breakfast Special</p> <p>Nepheline Syenite---190.00 Flint-----180.00 Dolomite-----61.60 Whiting-----41.50 Barium Carbonate---32.80 Kaolin-----10.70 Iron Oxide-----10.30 Rutile-----<u>25.90</u></p> <p style="text-align: right;">552.80</p>	<p style="text-align: center;">Buttermilk</p> <p>Gerstley Borate-----787.50 Dolomite-----510.00 Whiting-----675.00 Custer Feldspar---2197.50 EPK-----510.00 Talc-----1012.50 Flint-----1807.50 Zircopax-----<u>600.00</u></p> <p style="text-align: right;">8100.00</p>	<p style="text-align: center;">Carbon Trap</p> <p>Soda Feldspar-----1500.00 Nepheline Syenite- 1500.00 Spodumene-----1500.00 EPK-----500.00 Soda Ash-----<u>500.00</u></p> <p style="text-align: right;">5500.00</p>
<p style="text-align: center;">Celadon</p> <p>Custer Feldspar---4340.00 Whiting-----1240.00 EPK-----560.00 Flint-----1590.00 Red Iron Oxide-----<u>230.00</u></p> <p style="text-align: right;">7960.00</p>	<p style="text-align: center;">Custer Red</p> <p>Potash Feldspar-----47.50 Kaolin-----20.70 Whiting-----19.20 Bone Ash-----3.60 Red Iron Oxide-----<u>5.40</u></p> <p style="text-align: right;">100.00</p>	<p style="text-align: center;">Custer Yellow</p> <p>Custer Feldspar---2510.00 Dolomite-----3160.00 Whiting-----420.00 EPK-----3220.00 Flint-----<u>660.00</u></p> <p style="text-align: right;">9970.00</p>

