STUDENT HANDBOOK

INTRODUCTION

Greater Lansing Potters' Guild (Guild) is a non-profit corporation comprised of potters who share a common bond of commitment to clay and to a cooperative setting in which to work. It was incorporated in 1968 and is operated by the active membership. There are no paid personnel at the Guild except teachers. One purpose of the Guild is to sponsor instruction for the community. For this purpose, the Guild's Education Committee organizes and schedules adult student classes.

We welcome you as a student to our Guild and want your time here to be pleasant and productive. This handbook outlines the student program, provides tips on pottery making, contains a glossary and establishes the "ground rules" for student participation in the Guild.

STUDENT PROGRAM

Class Terms: Students may enroll in up to ten (10) terms of instruction. Each term includes ten (10) class periods. Depending on class availability, students may take the ten (10) terms consecutively or intermittently. Students who have completed eight (10) terms may be placed on a waiting list and may be eligible to enroll in additional terms only when there is an opening in a class.

Class Hours: Classes meet once each week during the term for three (3) hours, which includes instruction, practice and clean up. Please be punctual since the demonstrations are intended for all students and usually take place at the beginning of the class period.

Teachers: Our teachers are qualified individuals who either hold, an advanced degree in ceramics or have decades of experience as professional potters and/or artists. Students are expected to work with the teacher to set realistic individual goals in pottery making.

Class Assistant: A Guild member is present during class and is available to explain Guild work rules, make schedules, take attendance and assist students and the teacher in matters concerning the student program.

Lab Hours: Lab hours are scheduled between the first and last class of the term. A three-hour day session, a three-hour evening session and two three-hour Saturday sessions are scheduled. A lab monitor (Guild member) is present for lab hours. The lab monitor is available to assist students, but is not supposed to act as an instructor.

Weekly lab hours: M: 12 – 3 p.m. W: 6:30 – 9:30 p.m. Sat: 9-12 noon and 12-3 pm

Tuition: Fees for classes include the cost of instructors, use of the workshop and appropriate equipment during classes and lab hours, plus glaze materials, utilities, and other costs associated with the student education program. Students should anticipate changes in tuition fees during the time they participate in the education program.

Tuition Refund: No Refunds of tuition will be made once class begins.

FACILITIES, EQUIPMENT AND MATERIALS

Students may use most of the Guild's facilities, equipment and materials **except** for the pug mills and the experimental and members' only glazes. A portable cardboard portable spray may be set up and used in the permanent glaze spray booth, once instruction on its use has been given. Other restrictions, identified in this Handbook and by the class assistant, must be followed.

Guild equipment and materials are not to be taken from the Guild, except the 100 pound allotment of clay (see clay below). Glaze material and /or clay from outside the Guild are **not** to be brought into the Guild. Our clay and glazes have been formulated to work effectively in our kiln. "Foreign" materials may contaminate our supplies and/or cause damage to your work. Highlighted below are items identified for special consideration and compliance.

Student Shelves: Each student is assigned a shelf for storage of personal items, tools, clay and ware. A few drying shelves for student use are provided; however, for your peace of mind and control over your ware during the drying process, arrange your own shelf to accommodate drying of your work to the maximum extent possible.

Clay: Each student is provided 50 pounds of clay per term. Up to 50 additional pounds may be purchased from the class assistant during the term. Recycling your clay is economically beneficial as well as making it more workable. Collapsed pots can be wedged with dry clay, wrapped in plastic bags and stored on your self for future use.

Scrap clay: Most clay is reusable--don't throw it away unless it is contaminated with such items as glaze materials and dirt. Scrap clay is clay from the cleanings of your wheel or work area, trimmings from tooling and other very wet scraps. Place the clay into barrels covered with grating by pushing it through the grating. EXAMINE YOUR CLAY SCRAP CAREFULLY FOR SPONGES, TOOLS, NEEDLES, CHAMOIS, PLASTIC, etc. THEY ARE DANGEROUS WHEN LEFT IN THE CLAY. Put **contaminated clay** (e.g., floor sweepings) into trash cans.

Sinks: Use only the sink in the main room to wash clay from tools, bats, pans, hands, etc. First, rinse these items so that most of the clay goes into the clay slop buckets so as to minimize the amount of clay that goes down the sink. Then wash them in the plastic pans in the sink then rinse with water from the tap. This saves ground water--a highly valued natural resource.

Glaze Materials: Batch glazes are for every one's use. Samples of these glazes are on display. Different glazes give different results depending on the temperature at which they are fired. Consult the glazing guidelines and discuss details with your teacher or class assistant on the matter. Some glazes are labeled for "members only" or "experimental", and these are not for students' use.

Sieves: Sieves are fragile and expensive. Use only brushes to force glaze material through a sieve. Never use a spoon or any hard object on sieves. After use, wash sieves thoroughly.

Plaster: Plaster of Paris, or plaster in any form (e.g., powder, bats, molds) is not allowed in the studio.

OPERATIONAL PROCEDURES

A general sequence of events occurs in the studio: 1) construction of the piece, 2) drying of the piece, 3) bisque firing, 4) application of glaze and 5) glaze firing. Events 1, 2, and 4 are your responsibility. Guild members will take the ware through the firing steps. Glaze ware is fired when there is sufficient ware to fill the glaze kiln. Within reason, student ware has priority in all glaze firings except the last firing before a sale.

Raw Ware: Place raw ware on the ware carts provided. Bone dry ware is very fragile, so don't handle other peoples' ware. To insure that your ware will not need to be handled unnecessarily, fill the back of the shelf first.

Bisque Ware: Claim your bisque ware as soon as it comes from the firing and store it on your shelf until you are ready to apply the glaze.

Glazed Bisque Ware: After you have applied the glaze, clean the foot (bottom), measure the piece, record the piece, fill out the kiln slip and place the piece on the proper ware cart using the same careful procedure as when handling raw ware (see raw ware above and glaze guidelines below).

Glazed Ware: After a glaze firing ware is placed on the glaze shelves Ware should remain there for at least two days so others will have an opportunity to see the results (this is an important learning experience). This procedure is required of members, visiting potters and students.

Clean Up: Each student is to clean up the area where he/she works – wheels, work areas, glazing area, wedging areas, tools, bats, floors, e.g. everything. Cleaning sponges brooms, dust pans and brushes are in ample supply for easy and efficient clean up. Any clay swept off the floor is to be placed in the trash can, not in the scrap clay barrel. Turn the wheel off when you are finished.

Points System: The points system is a method of tracking the amount of ware to be glaze fired, measured in cubic inches (one cubic inch equals one kiln point). Each student is credited with 6000 kiln points at the beginning of the term. This is translated to a maximum of 6000 cubic inches of ware that can be fired during any single term by one student. Kiln points cannot be accumulated from term to term, nor are they transferable to other persons. Intermediate and advanced students are expected to be sufficiently discerning about their ware to fire only those pieces that demonstrate quality work and aesthetic value. Your teacher and class assistant can help you make such judgments. See Glazing Guidelines in this handbook for measuring and recording pot dimensions .

Health and Safety:

- Glaze materials may cause skin irritation in some people, therefore we recommend wearing protective gloves when glazing.
- The Guild is a tobacco smoke free environment.
- Please do not bring children or guests to the guild when you are working or plan to work. You're welcome to show your friends around the Guild at other than the work times.
- Pets are not permitted at the Guild.
- Sanding raw or bisque ware must be done outside. If done inside, sanding puts excessive amount of dust and fine clay particles into the building AND lungs.

Last Class: All work on ware is to be completed by the end of the tenth class period. If you have completed your work, the class period may be used for further practice, instructor critique or individual research in the Guild library. There will be no lab hours after the last class.

Before leaving be sure that your shelf is cleared and cleaned. Even if you are enrolled in a class the following term, you must remove your tools, materials, ware and personal items from the Guild. An exception is glazed bisque ware that may be left on the appropriate ware cart to be fired and picked up at a later time.

GUILD SALES

The Guild holds pottery sales semiannually, usually before Thanksgiving in November and before Mother's Day in May. Currently enrolled students are invited to enter up to eight (8) juried (by class assistant) pots in Guild Sales

HAPPY POTTING

GLAZE DEFINITIONS

A glaze is a liquid suspension of finely ground minerals which is applied by brushing, pouring, dipping, etc. onto the surface of bisque fired ceramic ware. After drying, the ware is fired to the temperature at which the glaze ingredients will melt together to form a glassy surface coating. The three basic components of a ceramic glaze consist of:

1. **A glass former**
   Usually in the form of silica (sand), it gives a glazed pot a glassy surface.

2. **A flux**
   Fluxes are added to glazes to lower the melting temperature of the silica to a range attainable in a ceramic kiln.

3. **A Stabilizer**
   Usually in the form of alumina, a stabilizer both increases the viscosity of the melted glass (glaze) to prevent it from running off the pot during firing and allows the glaze to stay in a glassy state as it cools.

Although a glaze is a glass, an unmodified silica glass requires too high a temperature before melting to be of practical use in ceramics. Fluxes are added to lower the melting temperature of the silica to a range attainable in a ceramic kiln. To prevent the melted glaze from running off the pot, a stabilizer is included to increase the viscosity of the melt and disrupt the recrystallization of the glaze components during cooling.

Glass Former + Flux + Stabilizer = Glaze

Frequent additives to glazes

Colorants – usually oxides or carbonates of heavy metals.

Flocculants – usually bentonite or Epson salts – are added to maintain glaze components in suspension and to prevent them from settling to the bottom of the container.

The characteristics of a specific glaze are determined by the exact amount and type of ingredients in the above categories. The goal is to create a glaze that meets the user's requirement for:

- A workable firing range
- Color
- Clay body fit
- Translucency
- Texture

GLAZING GUIDELINES

PREPARING Ware for glazing

1. Remove dust and dirt from ware with damp sponge.

2. Apply wax resist to foot of pot up to 1/4" from bottom (that part of the ware that sits on the kiln shelf).

PREPARING THE BATCH GLAZE

1. Check the batch glaze. If there are more than two (2) inches of water standing on top, call the teacher or class assistant for help in determining if water should be removed. **Do not make the adjustment yourself.**

2. Stir glaze thoroughly.

3. Check thickness with finger. Glaze should be thick enough to coat skin, but allow lines and hair to show through (coffee cream consistency is good).

APPLYING THE GLAZE

1. Apply glaze by pouring, dipping or brushing. (See application recommendations below.)

2. Wipe off glaze from bottom or foot of ware. Clean off 1/4" from bottom to accommodate glaze expansion and running.

3. If the glaze is too thick or you are unhappy with application, wash off glaze and allow to completely dry before applying another glaze (glaze will not adhere to a wet pot).

MEASURING AND RECORDING POT DIMENSIONS

1. Measure for cubic inches (height x depth x width). Use the chart in glaze room. For any fraction of an inch, use next higher whole number. Minimum height for any pot is two (2") regardless of actual height.

2. Record the dimensions and running total points in Student Points Book.

EXAMPLE:		cumulative total
Celadon bowl	Ht 6" x 6" x 4" = 144"	144
Segar blue vase	Ht 10" x 5" x 5" = 250"	394

3. Fill out appropriate colored kiln slip. Each glaze must be placed in a specific area of the kiln to match its maturation temperature. Check the chart in glaze room to find which color kiln slip to use.

Cone 10 reduction fire

white kiln slip	placed anywhere in kiln
blue kiln slip	placed in coolest part of kiln
pink kiln slip	placed in hottest part of kiln
yellow kiln slip	placed anywhere except hottest part of kiln

Place pot on ware cart corresponding with kiln slip color (put slip under pot).

Combining glazes with different firing temperatures

blue + white = blue kiln slip
blue + yellow = blue kiln slip
white + pink = pink kiln slip
combining pink + blue or pink + yellow NOT RECOMMENDED

APPLICATION RECOMMENDATIONS

Do not use experimental glazes.

Check with your instructor or class assistant before you glaze a piece to determine the best method of application.

Glaze thickness is adjusted to the manner in which it is applied. When dipping, longer dips mean thicker; shorter dips mean thinner. One or two seconds is usually long enough for most glazes. Pouring can often result in very heavy glaze buildup.

When testing the effects of overlapping glazes, only overlap on the top half of the pot to avoid glazes running in the kiln. Check with your teacher or class assistant about specific glaze combinations.

GLOSSARY

bat A disk or slab of wood or plastic on which pottery is formed or dried.

batch glaze Raw chemicals weighed to specific proportions designed to melt at predetermined temperatures and mixed with water.

bisque Unglazed fired ware.

bone dry Unfired pottery that has lost all moisture.

clay Decomposed granite type rock with finely sized particles making it plastic.

earthenware Low fired pottery (under 2000 degrees F.) usually red or tan with an absorbency of from 5 to 20 percent.

engobe (slip) Clay slip with colorants used to decorate leather hard ware and bisque ware.

foot Ring like base of a ceramic piece, usually thicker than the surrounding body.

glaze A liquid suspension of finely ground minerals which is applied by brushing, pouring, spraying, etc. on the surface of bisque-fired ceramic ware.

glaze fire A firing cycle to the temperature at which the glaze materials will melt to form a glass like surface coating.

greenware Pottery which has not been bisque fired. Also known as bone dry ware.

hand building A method of making pots using slabs of clay, and using techniques of coiling and pinching.

kick wheel A potter's wheel powered by the potter by kicking a large wheel or treadle.

kiln points A system of currency to pay for glaze firing. A kiln point equals one cubic inch. At the Guild, students are allocated a specific number of kiln points.

kiln furniture Shelves and shelve supports used in kilns to hold ware.

kiln slip A piece of paper, color coded, on which is recorded a potter's name, date, type of glaze and dimensions of the ware to be fired.

kiln wash A protective coating of refractory materials applied to the surface of kiln shelves to prevent glaze from fusing the ware to shelves. Usually made of equal parts of flint (silica) and kaolin (china clay).

kneading See wedging.

leather hard Condition of raw ware when some moisture has left the clay body, but still soft enough to be easily carved, burnished and, in some cases, distorts the shape.

maturity Temperature or time at which a clay or clay body develops the desirable characteristics of maximum non porosity and hardness; or to the point at which the glaze ingredients enter into complete fusion, developing a strong bond with the body, a stable structure, maximum resistance to abrasion, and a pleasant surface texture.

oxides Any element which combines with oxygen. Oxides are used in pottery for color and sometimes referred to as **stains**.

oxidizing fire A fire in which the kiln maintains an ample amount of oxygen. Electric kilns give an oxidizing fire.

plastic or plasticity The quality of clay which allows it to be manipulated and still maintain its shape without cracking or sagging.

raw ware Unfired ware.

reduction fire A fire in which combustion is incomplete and no free oxygen remains in the kiln chamber, thus causing the metallic coloring oxides in the glaze and body to lose oxygen and to revert to their basic metallic forms.

slip clay Clay containing sufficient fluxes to function as a glaze with little or no additions. Examples: Michigan and Albany slip (very expensive).

slip engobe See engobe.
stoneware High fired clay with a slight absorbency. Stoneware is similar to porcelain, the chief difference being the color, which is due to iron and other impurities in the clay, and the density of the fired clay body.
turning The trimming of the walls and foot of a pot on the wheel while in the leather hard state.
ware Pottery or porcelain in the raw, bisque or glazed state.
ware cart Carts on which ware, ready for firing, is placed.
wedging Kneading plastic clay with the fingers and heel of the hands in a rocking spiral motion, which forces out trapped air pockets and develops a uniform texture.