



Santa Reparata International School of Art
Course Syllabus

Summer Course

Course Title: Renaissance Painting Techniques: Egg Tempera

Course Number: ART 313

Credit: Credit: 3, Contact Hours: 90

1. COURSE DESCRIPTION

A Florentine experience for both studio artists and art historians. Many contemporary artists use methods that were developed during the Renaissance because of the richness and flexibility of such techniques. Art historians have an obvious interest in knowing specifically how the materials were used to create the masterpieces of Florentine painting. This course is intended for both groups and does not rely on previous painting experience, though that is helpful.

The course provides extensive experience with a range of the traditional materials and methods that were used in the masterpieces produced in Italy throughout the Italian Renaissance. Hands-on demonstrations, discussions, critiques and on-site field trips will inform both artists and art historians. The focus will be on the exploration of the distinctive luminosity and translucent characteristic of egg tempera and tempera grassa (tempera with oil) painting.

The source material for art works will include using photographs taken by the students of Florentine masterpieces, art historical reproductions, and other source material as discussed. In the studio students will learn the processes for making handmade gypsum or chalk gesso panels, preliminary ink grisaille drawings, transfers, a variety of value and color glazing techniques, egg tempera paints mixed from dry pigments, tempera grassa (oil emulsion), and applying and tooling gold leaf.

The world-class museums within walking distance of the Santa Reparata studios create a unique opportunity for group discussion and personal artistic research from actual Renaissance paintings.

2. CONTENT INTRODUCTION

Florence is the perfect place to study Renaissance painting. We will visit local museums to research how Florentine masterpieces were made and come back to the studio to explore these methods. The materials and techniques explored in the Renaissance still resonate with the contemporary working artist. We will investigate the traditional approach and find contemporary applications.

This is a course designed for an art historian or artist who wants to experience a hands-on studio course to investigate the materials and working methods of Renaissance masters. The emphasis will be on learning the technical processes through art appropriation of Florentine egg tempera paintings.

3. PREREQUISITES

No prerequisites are required. However, drawing and painting experience is beneficial to the understanding of the course content.

4. GOALS AND OBJECTIVES

Upon completion of this course students will possess the following working knowledge:

The materials and techniques common to the Renaissance including panel preparation transfer

of drawings, making egg tempera and tempera grassa paints from dry pigments and binders and gilding.

Students will also experience Florentine masterpieces through at least three course field trips. This will be augmented by their independent museum visits and diligent web and book research. Museum field trips may include: San Marco, Uffizi, and the Academia.

5. REQUIRED MATERIALS AND SUPPLIES

Sketchbook - recommend hard cover in a size you will likely carry around with you

Graphite pencils and eraser – range of hard and soft, mars plastic eraser

Tracing paper - at least six sheets

Sticks of vine charcoal for transferring drawings

Black sumi ink or other drawing ink in a brown or sepia color

Note: it may be easier to work with resoluble inks rather than permanent inks

Optional: Ink dipping pen with a point for hatch marks

Masking tape

Three eye droppers (available at a drugstore)

Pipe cleaners to clean the eye dropper (available at a drug store)

Quart size water container to clean brushes

Small glass jar with lid – baby food size for you egg medium

Watercolor brushes: # 8 and # 4 round and ½ inch square

Note: Kolinsky sable brushes are the best. You may want to buy them at Zecchi

Inexpensive alternatives to kolinsky sable, or in addition to sable:

Utrecht series # 234 nylon (sizes #2, #4, #8) or

Utrecht series # 228 nylon

Trekell's Golden Taklon Round brushes are highly recommended by the artist and author Koo Schadler. Since these are so inexpensive, buy a range of sizes. You can order these online

Other Brushes:

1 or 1 ½ inch watercolor wash brush for glazing

If you already own oil painting brushes – bring a few with softer bristles

Gesso brush – two or three inch house painting brush will work well

Metal palette knife - with a wide enough surface to grind the pigment (at least ½ inch)

Single edge and/or safety razor blades

Plain kitchen sponges (dark and light colors) can also use a natural sponge and high quality wedge cosmetic sponges

Another kitchen sponge with scrubby side to clean materials

Old toothbrush

Cheesecloth – soft high quality used for faux finishing is the best

Sandpaper 100 – 2000 grit for various uses

Porcelain dishes, cups or small plastic palettes (harder to clean) with wells to hold liquid color

Paper towels - you will need these everyday

One dozen 1 oz or 4 oz plastic jars with lids for pigment pastes (Zecchi in Florence)

Small plant spray bottle or atomizer

Scratching tools: push pins, thin nail or etching needle

Dust mask- paper type (will only need when handling dry pigments)

Latex or laetrite (will only need when handling dry pigments)

Bar of mild soap to clean brushes

Five Panels - painting surfaces recommended scale – approximately 8 x 10, 9 x 12, 11x 14

Available at Zecchi (one of these will be a test panel used throughout the semester)

Optional

heavy weight acid free drawing or watercolor hot press paper (may be easier to buy there) It is recommended that paper is backed by a masonite or mdf panel and sized with rabbit skin glue (make this in class)

Optional

muslin or smooth linen to adhere to a panel with rabbit skin glue

Dry pigments for Making Egg Tempera Paint

We will purchase all pigments at Zecchi (or other art stores in Florence)

You do not need to bring these with you. But allow some money in your budget for these colors. The cost will be approximately 35 - 40 Euros if you divide these with someone in class. These will be prepared for us at Zecchi. Overall price for course material between about 100-130 Euros depending on choices made on such things as brushes etc.

Recommended Egg Tempera Color Palette

Note: The specific colors will be arranged with Zecchi prior this course based on availability and cost

White	titanium
Black	mars black or ivory black
Yellow	yellow ochre, raw sienna, cadmium yellow substitute
Red	red ochre (sinopia), permanent red light, morellone oxide
Green	cool green earth
Blue	ultramarine blue dark, sky blue
Brown	raw umber

Optional: I highly recommend purchasing this 'book' by contemporary egg tempera artist Koo Schadler. It costs \$32.00. If you do purchase it before the trip, bring it with you!
<http://kooschadler.com/thebook.htm>

Other Studio Materials – Possible Group Purchases

You do not need to bring the following materials with you. We will discuss these materials the first day of class. Depending on the number of students in the class, we will divide the cost on some of these materials to save you some money. I just want to make you aware now of some of the other materials we will need for the class.

Rabbit skin glue granules (hot plate, sauce pan and wooden spoon)

Optional - egg yolk separator

Dry gesso mix (or calcium carbonate and/or calcium sulphate and titanium pigment and rabbit skin glue)

Gold Leaf - composition leaf (not real gold) and/or real gold sheets

Shell gold – gold in gum arabic for fine details

Other gilding materials as needed – TBA

Linseed oil and damar varnish for egg oil emulsions

Optional: gelatin granules (such as Knox gelatin) for use in making prepared papers for silverpoint and/or gesso

6. GRADING POLICY AND EVALUATION PROCEDURES

Your final grade will be based on the following percentages:

- 20% Homework and creative projects
- 20% Mid-Term critique
- 20% Classroom participation and attendance
- 25% Final project
- 15% Special project

Course work to include:

- An active course sketchbook with notes, museum, book, and web research, preliminary studies and drawings, and experimental studies
- Completion of four paintings on panel created both in the studio and outside of class

time. At least one of these paintings should include an exploration of gold leaf techniques

Also taken into consideration in the final grade:

- Punctual attendance
- Preparedness for and participation in studio time
- Quality of visual research and process in preliminary work for paintings
- Insight and contribution in group discussions and critiques
- Overall effort, progress and growth

Following grading system will be observed:

A	Excellent 4.0 (grade points awarded) 95% percentage of 100%
A-	3.7, (90% to 94%)
B+	3.3 (87% to 89%)
B	Above Average 3.0 (83% to 86%)
B-	2.7 (80% to 82%)
C+	2.3 (77% to 80%)
C	Average 2.0 (73% to 76%)
C-	1.7 (70% to 72%)
D	Below Average 1.0 (60% to 69%)
F	Failure 0.0 (59% and below)
W	Withdrawal 0.0

7. CRITIQUES

Critiques are friendly group discussion of each student's course work. They allow you to see your own work through the eyes of your peers and instructor, and also encourage you to develop critical insights about your work and the work of others.

8. ATTENDANCE AND BEHAVIOR POLICY

Students should attend all classes if they are healthy and able to come to class. Students who miss more than 1 class will have their final grade lowered by one letter grade for each additional absence. For example, if you have an "A" in this class and you are absent 3 times you will receive a "D" in the course. If you are absent more than 3 times you will receive an "F" on your transcript.

- Tardiness: After 20 minutes into class time, students are considered absent.
- Students who leave 20 minutes before class time ends will be considered absent.
- Excused absences require a doctor's note or a written note from the Director.
- Arriving in class unprepared to work is considered an unexcused absence.
- The use of cellular phones is prohibited during class time.

Students are expected to participate in class, act responsibly, and behave properly while on the school premises. Classrooms are to be left in order and clean. Students must take care of equipment and materials and promptly report any damage and/or loss.

Please turn off cell phones before class starts.

9. COURSE CALENDAR

Thursday, June 22nd

Introduction to course, syllabus, materials, and discuss the projected calendar. Watch DVD "Breaking Eggs, Making Paint" by Hilton Brown. Walk to Zecchi to buy materials for the course. Bring all materials to the next and every class.

Friday, June 23rd

Class in session, missing day's activities

Monday, June 26th

Thursday you need a small test panel and one panel for your first painting. You also need to bring half dozen eggs this week. Try to find the freshest eggs possible. They will not be refrigerated in the grocery store, but I would refrigerate them once you buy them. We have a smaller refrigerator for the class. Mark your carton. You will need one egg (or two) for every class session. I recommend making fresh egg tempera medium everyday – especially in the summer!

Bring the first image to appropriate. This should be an egg tempera or fresco painting with simple color shapes with a figure or figures in a flat space. This space may be decorative, symbolic, or stylistic. Consider icon works with a Byzantine influence such as Duccio and Cimabue. Bring both a black and white and color versions of the image the exact **same scale and proportion** as your first panel. Use the web, books, museum postcards etc. for source materials. Find the highest quality image possible. Museum postcards are often good sources and can be scanned or shot with a digital camera to manipulate in Photoshop. You may choose to research this online, however, be sure you are able to download a high -resolution image 'to scale' of your first panel. Bring this image and all course materials to class. Also, be looking for your second Renaissance painting to copy, which will include gold leaf. Transfer the image to the panel. Do a delicate grisaille underpainting in ink washes and line work. When completely dry, begin incorporating the egg tempera layer.

Tuesday, June 27th

During class, in between painting, we will be doing layers of gesso on a second panel. This is to make a better 'cushion' for the gold leaf and should be very smooth in preparation of gilding. I recommend a gentle sanding of the final layer once its completely dry. Make pigment pastes for all colors except ultramarine and white. Demonstration of three techniques to prepare pigments: with a muller or mortar and pestle, shaking with water in a small jar and grinding on the palette. Egg yolk medium is **approximately** two parts egg yolk to one part water- but it depends on the yolk and the pigment! It should be about the consistency between thin and heavy cream. Test your colors by painting a strip on glass. It should curl not crumble when scraped up with a razor blade. Three basic rules' of tempera painting: use a true gesso ground, temper your paints thoroughly at the right ratio of 1:1 egg medium to pigment paste (may vary with individual pigments) and do not paint impasto.

Traditional Icon techniques:

Make thinner (leaner) egg tempera medium in the first layers.

First stage or 'petit lac (little lake) should be matt when dry 1:9 egg to water (some pigments will need less or more)

Then 1:6

Nourishing layer 1:12 to unify with no pigment just egg tempera medium

1:3 at the end, which makes the colors, stand out against the matt background colors

1:1 is good for fine detail

Wednesday, June 28th

Find a gilded image you wish to copy for your historical copy second painting.

Full working day on first painting and begin research and preparation for the second that will include one or more gilding techniques.

TBD Field trip to the **Academia Museum or San Marco's** egg tempera collection for an hour. Bring your sketchbooks to take notes and make sketches.

Thursday, June 29th

Finish first painting and begin second painting. Transfer the drawing and paint bole in areas to be gilded on second painting.

Monday, July 3rd

Demonstration and discussion of real and 'fake' gold leaf techniques, scragfitto, shell gold and

tooling or stamping. Work on the underpainting/grisaille layer and egg tempera layer of second painting.

Tuesday, July 4th (Midterm week – Individual Critiques)

Assignment: Do preliminary research and planning on the third painting - tempera grassa piece. Students may choose one on the following to inform this painting: take photographs of sculptures and/or other images in outdoor spaces, create a compilation of images bases around a theme, or copy and/or contemporize another master painting.

Other self-directed options may be proposed.

Work on the gilded painting in class this week

Tempera Emulsions – Tempera Grassa/Excerpts from Ray Smith – The Artist’s Handbook

A number of recipes are given here. The basic recipe is generally:

1 part egg, 1 part oil, two parts water

If resin (such as damar varnish) is introduced into the mix, it generally takes half of the oils share. Some recipes use whole eggs, and some use just the yolk.

2 parts egg, 1 part oil, 1 part resin, 4 parts water

Recipes with damar varnish tend to have better working qualities. Also, using damar resin will make the emulsion last longer. Store in the refrigerator.

Mix the aqueous ingredients together first – egg and water. And add the oil and resin drop by drop with continuous agitation. This can be made in a blender for thorough mixing.

Egg tempera emulsions dry slower than straight tempera, so there is more ‘open’ time to manipulate the paint. It is possible to paint thicker with emulsion One reason for incorporating egg/oil emulsions as tempera mediums is to allow better adhesion to an over painted oil film.

The following seven recipes are soluble in water:

Tudor Hart – 1 part egg yolk, 1 part sun bleached linseed oil, 2 parts water, 10 drops of Spike-lavender oil (per egg yolk used)

Ralph Mayer – 2 parts whole egg, 1 part stand oil, 1 part damar resin, 4 parts water

Ralph Mayer – 6 parts egg yolk, 2 parts stand oil, 2 parts damar varnish, 1 part water

Kurt Whelte - 2 parts egg yolk, 1 part boiled linseed oil, 2 parts damar varnish, 2-4 parts water

Arthur Laurie – 2 parts whole egg, 1 part stand oil, 3 parts water

Arthur Laurie – 2 parts egg yolk, 1 part linseed oil oil, 3 parts water

Maria Bazzi – 2 parts egg yolk, 1 part linseed oil, 1 part damar varnish, 4 parts water

These two recipes are soluble in turpentine:

Arthur Laurie – 1 part egg yolk, 1 part stand oil, a little turpentine

Arthur Laurie - 1 part egg yolk, 1 part linseed oil, 1 part Venice turpentine

Wednesday, July 5th

Studio workday. Work on tempera grassa paintings and Individual Critiques.

Thursday July 6th – Tuesday, July 11th

Work on tempera grassa paintings. Individual discussions on written proposal for student’s final self directed work.

Guidelines for final painting: Choose one of the five following directions and research/prepare as needed to begin painting on Thursday July 13th. **The Triad of Influence Project.** Details forthcoming. Ideas may also incorporate:

Inventing from a richly constructed Florentine master (pattern, gilding, and architecture and/or landscape elements, multiple figures, etc)

Creating a painting exploring compiled space from your experiences and inspirations using photographic and/or drawing sources – consider a larger scale

Appropriating from a masterwork or works to create a new image

Collaging/Palimpsest/Contemporary methods – expand the Renaissance methods and materials covered into a compelling contemporary image

Typed Proposal on the Final Project due no later than Wednesday, July 12th at the beginning of class.

Make gelatin sized/pigment toned papers for Thursday's experiments.
Handout on textural exploration. Gather texture-making materials for Wednesday over the weekend.

Wednesday, July 12th

Experimental day to explore abstract/textural potential of egg tempera. Make 12 or more studies on sized paper. Optional: Explore masks, stencils, and varying approaches to making texture.

Discussion of Finishing an Egg Tempera Paintings

The following excerpts are from Koo Schadler's Egg Tempera Book.

mark a calendar or make notes in a sketchbook about completion dates and finishing plans.

If do nothing:

Painting will have a matte finish

May have an uneven surface if tempered unevenly

Vulnerable to scratches and moisture until it has cured

Can be worked on further, but as it cures this may become difficult. Cures in 6 months to a year. Some artists put glass over ET until its fully cured.

Burnish

Wait 6-12 months until paint film has polymerized to polish with a soft cloth.

May be able to do it sooner – gently! Use high-grade soft cheesecloth, an old tee shirt or piece of silk.

Can also add a 'nourishing' layer of diluted egg medium – use half medium and half water. Let this layer dry completely (a few days to 12 months) and then burnish. May also burnish while painting if super careful not to scratch or lift paint.

Varnish

Will saturate the surface, bring out full color and make the painting look a little darker. It will even out the surface and can choose matte or gloss depending on the varnish used. A varnish will protect the painting (so don't need glass) but once you varnish it you can no longer apply egg tempera to it. You should wait at least two weeks to use retouch varnish and six months to a year for final varnish. Gamvar made by Gamblin is a good choice for a final varnish.

Oil paint on top of tempera

Oil paint on top of tempera will have similar attributes as varnish. You can freely glaze and use impasto. You should use an 'isolating layer' between the egg tempera and oil. Again, wait at least two weeks. You can use alkyd medium for this if you add 10% linseed oil and 10% solvent so the underlying areas can cure and oxidize. Glazes can deepen the darks and add an atmospheric quality that is difficult to achieve with pure egg tempera. Let isolating layer dry a few days. Then you can use any medium with your oil paints you choose in some areas or on the entire painting. You can use a final varnish at after 6 months to even out this surface. You cannot paint egg tempera onto of oils because it will be too slick.

Thursday, July 13th

Alternative and Expanded Methods. Full working day on final painting project.

Monday, July 17th

Work on the final project and individual critiques. Last working day in class – Monday, July 20th.

Final Group Critique on the 20th during second half of studio time

Tuesday, July 18th - Student Exhibition and Farewell Banquet

Details will be announced, but plan on meeting as a group to install your work in the Student Show Tuesday morning and returning for the opening in the early evening. Art works should remain installed until the end of the opening.

10. DISCLAIMER

This Syllabus may be amended as the course proceeds. You will be notified if changes are made.

RADA IN SCHOOLS INTRODUCTION CONTENTS At RADA we believe that everyone can benefit from the training provided by our exceptional tutors. We have therefore developed a variety of activities for schools. 1 rada in schools. 2 INTRODUCTION CONTENTS At RADA we believe that everyone can benefit from the training provided by our exceptional tutors. We have Introduction. Information Retrieval (IR) is a large and growing field within Natural Language Processing (NLP). The search engine is the most well-known (and perhaps still the only really useful) application. Search engines like Google¹ and AltaVista² are used by many people on a daily basis. There are several other applications within IR. Among them this text considers text clustering in particular. A text clustering algorithm partitions a set of texts so that texts within the same group are as similar in content as possible. 4 Content Markup 4.1 Introduction 4.1.1 The Intent of Content Markup 4.1.2 The Structure and Scope of Content MathML Expressions 4.1.3 Strict Content MathML 4.1.4 Content Dictionaries 4.1.5 Content MathML Concepts 4.2 Content MathML Elements Encoding Expression Structure 4.2.1 Numbers 4.2.1.1 Rendering 4.2.1.2 In Section 4.2 Content MathML Elements Encoding Expression Structure, a core collection of elements comprising Strict Content Markup are described. Word 2013 training Introduction to Tables of Contents (TOCs). Introduction to Tables of Contents. In this course: Introduction to Tables of Contents Video. Next: Line spacing. Work anywhere from any device with Microsoft 365. 4.2.1.1 This video talks about automatic tables of contents. First, go through your document and add a heading with a heading style wherever you want a table of contents entry. Then, insert an automatic table of contents, and update it automatically whenever you make a change. Create a table of contents. Introduction. Parallel systems are becoming ubiquitous in the world of computing as evidenced by multi-core processors, heterogeneous Cell broadband engine, and highly parallel graphics processing units (GPUs). All parallel systems share a requirement that parallel programming is necessary to leverage multiple cores. 4.2.1.2 Introduction to Graphic Processing Unit Computing. Core comparison between a CPU and a GPU.