

*Academy of Visual Arts*  
*Bachelor of Arts (Hons) in Visual Arts Programme*

**VART 3235 From Zero Space to Infinite Dimension:  
The Art of Glass Casting**

**No. of units: 3**

**Pre-requisite: VART 2235 From Liquid to Solid: The Art of Glass Blowing OR VART 2236  
Ceramic Art: From Pinched Pot to Sculptural Form**

**Duration: 52 hours**

**Cluster: Glass & Ceramics**

**I.1. Course Description & Rationale (200–300 words):**

Most objects have three dimensions; however glass can have infinite dimensions through the very light that travels through it and is captured within it. It is a unique quality of glass that it can be transparent, translucent and/or opaque. Such qualities make it possible for glass to express infinite dimensions externally and internally at a zero space.

Glass Casting is an ancient Chinese glass technique that can be dated back to the Warring State (BC 481-221). Now it is the primary glass art technique taught internationally and locally, and one of the main glass production methods used by artists and designers. It is also becoming an important art skill for creative industries, and it has a place in fine art, public art, spatial design and in architecture.

This course introduces the essential techniques of Glass Casting and its sufficient cold-working such as grinding and polishing for finishing the glass product. Students will explore the potential for Cast Glass artworks, and at the same time build a solid and sufficient knowledge base in Glass Casting skills and the accuracy required for good craftsmanship. This class will encourage the enhancement of aesthetic understanding, sensitivity to design, development of imagination, and the development of personal creative language.

Learning Glass Casting allows students to apply their understanding of two-dimensional concepts – drawing and design skills – to three-dimensional works. It also allows students to integrate their studies in sculpture, ceramics, jewellery, design and installation to formulate an interdisciplinary practice within Glass Casting.

The course will allow students to attain Glass Casting craftsmanship, and establish their personal creative language through different projects. It will also expose students to the history and development of Glass Casting and important examples of glass cast designs and art works.

## I.2. Course Content:

No.		Hours	%
1.	Overview of worldwide international artist works and creative industry in Glass Casting.	4	8
2.	Theory of Glass Casting: 24% lead glass, fire at 850°C with high temperature plaster, annealing schedule for varies size glass works.	4	8
3	Open Face Mould: clay/soft material, how to mix and invest plaster, and then to remove clay/soft material away, measure the quantity of glass with water method, setting up a kiln for firing.	6	12
4	Wax Mould: melting wax with safety, carving/making a wax mould, to steam wax out of plaster mould at 100°C in a glass steamer.	8	15
5	Silicon Mould: transfer moulds/forms/ready-made objects, to duplicate from one to many and still remain unique.	6	11
5	Multiple Silicon Mould: for complex forms with supporting moulds, to deconstruct a complex mould in simple steps.	8	15
7	Cold working for Cast Glass: focus on grinding, polishing, sandblasting. [The principle of Casting Glass cold working is similar to Blown Glass but their practical process is different, since they use different glass materials (Glass Blowing uses soda-lime glass, Casting uses 24% lead glass) and each produces a different form and visual language (Blown Glass works are mostly organic hollow forms, and Casting Glass works are mostly solid forms by moulding).]	4	8
8.	Aspects and strategies of developing a personal artistic concept and artistry.	8	15
9.	Studio research of Glass Casting.	4	8
		52	100

## I.3. Intended Course Learning Outcomes (CILOs):

*(Please take note of the PILOs for the overall BA programme in the Programme Document.)*

Upon successful completion of this course, students should be able to:

No.	Intended Course Learning Outcomes (CILOs)
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1.	Transfer two-dimensional concepts – drawing and design skills – to three-dimensional works in Glass Casting;
2.	Skilfully use the cold shop to enhance, improve and further develop their cast products;
3.	Articulate personal artistic expression and create new meanings through Cast Glass works;
4.	Integrate studies in sculpture, ceramics, jewellery, design and installation to formulate an interdisciplinary practice within Glass Casting; and
5.	Adhere to standards of professional practice and ethos.

\* More may be added.

#### I.4. Alignment of CILOs with PILOs:

Learning Outcomes	Please indicate alignment by checking '✓' the appropriate box					
	CILO1	CILO2	CILO3	CILO4	CILO5	CILO6
PILO1.1						
PILO1.2	✓	✓	✓			
PILO2.1						
PILO2.2		✓	✓	✓		
PILO2.3						
PILO3.1					✓	
PILO3.2					✓	

\* There may not be 6 CILOs, in which case, just leave columns empty.

#### I.5. Alignment of Teaching and Learning Activities with CILOs:

No.	Teaching and Learning Activities	CILO	Hours
1.	Lectures: Students will be given lectures with PowerPoint and audio-visual media including an overview of worldwide international artist works and creative industry in Glass Casting, and consider its historical and cultural impacts and explain the different principles of soda-lime glass (Blowing) and lead glass (Casting). From these, they will acquire the principle and theory of Glass Casting, and its art form in a contemporary context.	1, 4, 5	8
2.	Technical demonstrations: Students will be given technical demonstrations on various methods of moulding and transferring forms from different material to glass, learn how to invest high temperature plaster without introduce bubbles in their moulds, how to	2, 3, 5	20

	measure the quantity of glass by water, how to work with wax, from clay mould to silicon mould, and also with sufficient cold working finishing technique.		
3.	Supervised studio exercises: According to different way of moulding, students will develop their ideas and concept through practice. Individual supervision and group discussion on problem solving and creative ways of making moulds will be conducted depending on each individual student's needs.	2, 3, 5	14
4.	Research practice: Students will be guided to do research on Casting Glass to broaden their horizons on their knowledge of casting Glass and its visual aesthetics/expression in contemporary art.	1, 4, 5	4
5.	Student presentations and critiques: Students will do a PowerPoint presentation on their research practice, from which they will share their research and open themselves to further discussion in class. Each studio project made by the students will be discussed in the form of studio critique, from which students will learn how to articulate their concept and how to think critically on the content/meaning of their artwork, and also how to engage art works from different perspectives/views.	1, 4, 5	6

*\*More may be added.*

#### **I.6. Assessment:**

<b>No.</b>	<b>Assessment Methods/Activities</b>	<b>Weighting</b>	<b>Alignment with CILOs</b>
1.	Research presentation: Students will be required to give an oral presentation on their studio research in the area of Casting Glass to demonstrate their knowledge of Casting Glass in contemporary context, which may serve as a link/bridge to their personal creativities. Students have to demonstrate that they have sufficient in-depth research on the topic they choose and present/illustrate a well-organized PowerPoint presentation.	10%	1, 4
2.	Study Journal: reflections, observations, inspirations A journal is a visual diary of study documentation. Students are requested to take notes, drawings and sketches as a study journal. A journal should include: notes on each lesson clearly with date, notes on the use of machinery, working process, occupational health and safety, drawings and sketches of ideas, handouts, relevant photos, artists' works	10%	3

	or exhibitions (relevant to their ideas, projects, inspirations and works) and also the firing schedules for different size/forms of works.		
3.	<p>Studio Practice:</p> <p>Students will produce two to three works on each subject to demonstrate their understanding on the ways and possibilities of each method, and then to develop a personal meaning and thought in the language of Glass Casting. The three major studio practices are: open face mould, wax mould and silicon mould. Students have to demonstrate they fully understand the characteristic of each method and how to explore new possibilities without limitations.</p>	30%	2, 3, 4
4.	<p>Final Project:</p> <p>At the end of the course, students have to produce a body of conceptual work within the frame of Glass Casting, to create a personal meaning, which is new to the field of contemporary Casting Glass art.</p>	20%	2, 3, 4
3.	<p>Professional Attitude:</p> <p>Professional Attitude does not necessarily define its own learning outcomes, but takes a look at 'how' the other, non-attitudinal outcomes are achieved. Assessment will always be based on direct personal contact with the student. Assessment methods include personal conversations – formal and informal –, class observation, individual and group-tutorials, and such like. Assessment evidence is continuously produced through attendance and participation class-records, public presentations, peer-reviews, evaluation of sketchbooks or visual diaries, personal notes of students and teachers, etc.</p> <p>For more information, please refer to the BA (Hons) in Visual Arts' Programme Document.</p>	30%	5

*\*More may be added.*

#### **I.7. References (up to 10 books):**

##### *Books*

Beveridge, Philippa, Ignasi Doménech, and Eva Pascual. *Warm Glass: A Complete Guide to Kiln-Forming Techniques: Fusing, Slumping Casting*. New York: Lark Books, 2003.

Cummings, Keith. *Techniques of Kiln-Formed Glass*. London: A & C Black; Philadelphia, Penn.: University of Pennsylvania Press, 2001

Hahrner-Tutsek, Eva-Maria, Susanne K. Frantz, Xue Lu, and Katharina Sykora. *Glass. China*. Munich: Alexander Tutsek-Stiftung, 2009.

Kervin, James, and Dan Fenton. *Pâte de Verre and Kiln Casting of Glass*. Livermore: Glass Wear Studios, 1997.

Kwan, Simon (關善明). *Early Chinese Glass (中國古代玻璃)*. Hong Kong: Art Museum, The Chinese University of Hong Kong, 2001.

Lynn, Martha Drexler. *Sculpture, Glass, and American Museums*. Philadelphia: University of Pennsylvania Press, 2005.

Nihon Garasu Kōgei Kyōkai. *Art in Glass: The Creative Work of 95 Japanese Artists*. 1st ed. Tokyo: P.I.E. Books, 2002.

Oldknow, Tina. *Clearly Inspired: Contemporary Glass and Its Origins*. San Francisco: Pomegrante Communications, 1999.

Vallien, Bertil. *Cast Glass Sculpture*. New York: Heller Gallery, 1987.

#### *Glass Video*

Schwartz, Amy. *Glassworking: Processes & Properties*. Corning: Corning Museum of Glass, 2007.

Cairns, Fiona, and Illuminations. *Glass Now*. London: Illuminations, 2003

#### *Glass Journal*

*Glass*. New York: New York Experimental Glass Workshop, 1990–

*New Glass*. Düsseldorf: Verlagsanstalt Handwerk, 1980–

*Craft Arts International*. Sydney: Craft Art Pty., 1988–

### **I.8. Academic Integrity:**

Students will endeavour to only claim work that they have actually produced themselves. Claiming the work of others is considered plagiarism, and will be dealt with under the academic policies of the university.

### **I.9. Health and Safety:**

Every effort will be made to comply with the intent of Hong Kong's law or acts and the University's policies to maintain a safe and healthy working environment.

### **I.10. Final Note:**

The instructor reserves the right to modify the class and the syllabus or the schedule to adjust to the dynamics of the particular group or to take advantage of opportunities that may arise.