同济大学 TONGJI UNIVERSITY
CEIE Academic Mobility Program

# 041175 Drawing and Sketching

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| **Course Code** | 041175 | | **Course Name** | Drawing and Sketching | |
| **Instructor** | Professor Gang Wu | | **Other Teachers** | TBA | |
| **Course delivery** | Lectures | Seminars | Guest Speakers | Group Activities | Field Trip(s) |
| | √ | √ | | √ | √ |
| | Tutorials | Projects | Pitch(es) | Presentations | Outreach Workshop |
| | √ | | | | Optional |
| **Total Hours** | 54 in-class contact hours + Self Study Hours<br>This course is worth 6 ECTS points. | | | | |

**Course Description**

In this course, students will apply both manual and computer applications to communicate and represent ideas and technical drawing systems. "Sketching" will be freehand drawing and "Drawing" will be done through using drawing instruments, from compasses to computers tool to bring greater precision to the drawings. Plain ideas can be translated into appealing and communicative visual images. Observational and conceptual drawing skills will be developed and enhanced to allow students to effectively convey different concepts. Students will also upskill their current skill sets to include computer-aided design (CAD) and development.

This course is a platform through which students can demonstrate their creativity and imagination through experimenting and exploring with different tools as well as communicating their ideas with their peers.

**Brief Schedule and Topics**

1. Hand drawing overview
2. Lines
3. Textures and Patterns
4. Shapes
5. Geometry of composition
6. Drawing Buildings
7. Form and colour
8. Drawing Landscapes
9. Drawing basics
10. Graphic communication and technical drawing
11. CAD and technical drawing introduction
12. Design drafting applications
13. Creating CAD components
14. Creating technical drawings
15. Hand drawings vs computer applications drawings

**Learning Objective**

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

- Apply both manual and digital techniques to communicate and represent ideas;
- Develop observational and conceptual drawing skills;
- Create technical illustrations using relevant software technology;
- Understand different drawing techniques and digital media tools to effectively communicate a concept;
- Critically evaluate the effectiveness of a technical drawing.

**Requirements**

The course is open to students from all academic disciplines who are willing to develop familiarity with methodologies for generating hand drawings and technical drawings.

**Reference Books**

Course materials (including lecture notes, supplementary readings and solutions to assignment questions) are handed out during the class.

**Assessments**

Assessments in this course include:

| Assessments | Percentages |
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| Class participation (individual) | 20% |
| Homework (individual) *4 | 40% in total (10% each) |
| Sketch work set | 20% |
| Technical drawing in CAD | 20% |

*Details of assignments will be announced in class.

**Detailed Daily Schedule (TBC)**

| Topic (tentative) | Activities |
|---|---|
| **Hand drawing overview** | Lecture; Case Studies; In-class activities; Homework 1 |
| **Lines** | Lecture; Case Studies; In-class activities |
| **Textures and Patterns** | Lecture; Case Studies; In-class activities |
| **Shapes** | Lecture; Case Studies; In-class activities |
| **Geometry of composition**<br>How to develop a pictorial focal point and directionality. Explore “Golden Section” and other compositional aids. | Lecture; Case Studies; In-class activities; Homework 2 |
| **Drawing Buildings （1）** | Lecture; Case Studies; In-class activities |
| **Drawing Buildings （2）** | Lecture; Case Studies; In-class activities |
| **Form and colour**<br>Drawing fundamentals – “ Form and Colour” using colour, light and shadows to create form. | Lecture; Case Studies; In-class activities; Homework 3 |
| **Drawing Landscapes** | Lecture; Case Studies; In-class activities |
| **Drawing basics**<br>Dry and Wet media | Lecture; Case Studies; In-class activities; Homework 4 |
| **Field trip** | |
| **Graphic communication and technical drawing** | Lecture; Case Studies; In-class activities |
| **CAD and technical drawing introduction** | Lecture; Case Studies; In-class activities |
| **Design drafting applications**<br>Pipe, structural, architectural, civil engineering, GIS, electronics and printed circuit boards | Lecture; Case Studies; In-class activities |
| **Creating CAD components** | Lecture; Case Studies; In-class activities |
| **Creating technical drawings** | Lecture; Case Studies; In-class activities |
| **Hand drawings vs computer applications drawings** | Lecture; Case Studies; In-class activities; Sketch work set submission; CAD drawing submission |

**Academic Integrity and Policies**

Tongji University Academic Policy for international students makes reference to the Academic Policy for Undergraduates (Issuing on 20th, June 2005) and Academic Policy for Postgraduates.

**Academic Integrity**

Students are expected to uphold the university's academic honesty principles, which are an integral part of the university's core values and principles. If a student fails to observe the acceptable standards of academic honesty, they could attract penalties and even disqualification from the course in more serious circumstances. Students are responsible for knowing and observing accepted principles of research, writing and any other task which they are required to complete.

Academic dishonesty or cheating includes acts of plagiarism, misrepresentation, fabrication, failure to reference materials used properly and forgery. These may include, but are not limited to: claiming the work of others as your own, deliberately applying false and inaccurate information, copying the work of others in part or whole, allowing others in the course to copy your work in part or whole, failing to appropriately acknowledge the work of other scholars/authors through acceptable referencing standards, purchasing papers or writing papers for other students and submitting the same paper twice for the same subject.

This Academic Integrity policy applies to all students of the Tongji University in all programmes of study, including non-graduating students. It is to reinforce the University's commitment to maintaining integrity and honesty in all academic activities of the University community.

**Policy**

- The foundation of good academic work is honesty. Maintaining academic integrity upholds the standards of the University.
- The responsibility for maintaining integrity in all the activities of the academic community lies with the students as well as the faculty and the University. Everyone in this community must work together to ensure that the values of truth, trust and justice are upheld.
- Academic dishonesty affects the University's reputation and devalues the degrees offered.
- The University will impose serious penalties on students who are found to have violated this Policy. The following penalties may be imposed:

- Expulsion;
- Suspension;
- Zero marks/ fail grade;
- Marking down;
- Re-doing/re-submitting of assignments or reports; and
- Verbal or written warning.