

Course Title: Visual strategies for effective science communication

Course Leader: John Bellamy

Brief description of course content:

In this course, students will learn basic principles of visual communication which can be applied to all platform of visual communication. By adhering to the rudimentary principles taught in the session and by developing a critical understanding of the various factors involved in the development process, students will learn how to tackle the design of visual material with a systematic problem solving approach.

The skills learned from these sessions, when practiced and applied, will help the user develop an ability to successfully design effective posters, presentation slides, illustrations and diagrams. Students will learn the key skills that enable them to tailor effective communication visuals that accurately convey information to intended audiences.

Visual Communication Challenge

Students are encouraged to come to the first session with some ideas of a visual problem that they would like to solve under the duration of the course, e.g. a poster they would like to make, a PowerPoint presentation, a schematic illustration. Students will prepare a brief description (short paragraph) of the concept and/or a simple sketch that would help define and describe the design problem to others outside of their particular discipline.

Though some simple guidance can be given on technical use of software, it is recommended that students use the tools that they are most familiar with to create the homework solutions and Visual Communication Challenge project work.

Written feedback for the finalized Visual Communication Challenge project pieces will be provided by the course leader at the end of the third week giving constructive critique to each participant that presents a piece during Session 5.

This course will be based on some lecturing, followed with discussion. Practical hands-on exercises based on theory will also be necessary. There will be time during the 2nd, 3rd, 4th seminar sessions to work on/discuss project work. Each lecture will advance the work on the activity and there will be a classroom critique at the end of each lecture; critique/feedback is a very important part of design process. Each session will end in the distribution of a simple homework assignment that invites students to provide examples of the topics learned. The homework will not be formally assessed but will be used as fuel for discussion in the next class whilst also receiving constructive critique from the course leader during the session.

Students will receive credit/no credit for their attendance in the course. In order to receive credit, students will need to attend all 5 sessions and present in the final session. If students cannot attend all sessions, they are welcome to attend for no credit, but they will not receive feedback on project work.

Course Outline

Monday 25th April

Time: 9.00-12.00

Location: Geohuset, room U37

Session 1. Corse introduction: Fundamental aspects of visual perception. Ways to improve upon reality to create effective visuals.

A brief history of how visual communication has assisted in the communication of science. Some historic examples will be demonstrated of how the use of effective visuals have enhanced some of the more commonly known scientific theories and some that have failed in its absence.

A short presentation about what visual communication really is and a quick but important hands-on problem solving exercise to kick-start the design thinking process. Students in small groups will be presented with a simple visual problem to solve. A constructive collective review of the outcomes will follow.

The four principles of perception will be described and demonstrated to the class. Simplicity, Figure ground, Similarity and Connectedness. Followed by three ways to improve upon reality: Be selective, be schematic and be symbolic.

Wednesday 27th April,

Time: 9.00-12.00

Location: Geohuset, room U37

Session 2. Going from verbal to visual: Visual strategies. Creating the building blocks of successful visual communication.

Going from verbal to visual. The presentation will focus on the early steps of developing design solutions by describing some effective strategies to clearly define a framework, create a visual menu and to identify who the actors are in the problem.

Visual Communication Challenge. Students are invited to briefly discuss the visual problem that they intend to solve in the coming weeks.

Friday 29th April,
Time: 9.00-12.00
Location: Geohuset, room U37

Session 3. Basic visual elements of design: Lines, shapes, symmetry, colour and typography.

Lines, shapes, symmetry, colour and typography are all integral elements of design of visual communication. A strong familiarity of these and a good understanding of how we can make them work for us is essential for our success.

A short presentation with slides will cover the facts of these elements and describe ways that they can be utilized and manipulated for our needs.

Students will present completed homework assignments and will receive constructive support from the course leader during the session for developing their Visual Communication Challenge project ideas.

Monday 9th May,
Time: 9.00-12.00
Location: TBA

Session 4. Engage your audience: Identifying your intended audience and appealing to their specific needs.

How to minimize complexity and utilize existing systems of communication to best effect. By eliminating unfamiliar terms, concepts & images, the message can be streamlined to have the greatest effect. Use existing systems and conventions to best effect rather than inventing new ones.

Students are invited to discuss the development of Visual Communication Challenge projects and to take the opportunity to give and receive constructive critique. This will be a prime opportunity to gain insights of ways to improve project work before presenting them at the final session.

Wednesday 11th May,
Time: 9.00-12.00
Location: Geohuset, room U36

Session 5. Final presentation of Visual Communication Challenge project.

Learning outcomes

By the end of this course students will have had the opportunity to develop skills that enable them to define and evaluate their intended audience, to develop a visual strategy for communicating to that audience and lastly to design visuals that communicate effectively to that audience.

With continued practice these skills will provide the user with a life-long ability to visually communicate their ideas to any audience necessary.

Upon completion of the course students should have a finished product that they can use (e.g. a poster to use at a conference; a PowerPoint presentation to use at meetings; a schematic illustration to use in presentations or in publications).

Course literature

This course does not require students to have read particular texts, but below are some suggested books that complement the subject matter.

Universal Principles of Design (2003), W. Lidwell, K. Holden, J. Butler

Visual Language: Global Communication for the 21st Century (1998), Robert Horn

Visual Research: An Introduction to Research Methodologies in Graphic Design (2005), Ian Noble, Russell Bestley