

# DESIGN THINKING

## 6. COURSE OBJECTIVES

Upon successful completion of this course each student will be able to:

- identify ill defined and wicked problems and employ the design thinking process in addressing these problems. (P, B, D)
- identify and utilize basic design principles. (P, B, D)
- identify several universal design principles related to their profession or discipline and employ them productively. (P, B, D)
- utilize the three parts of the design thinking process in building innovative and productive products, processes or services. (P)
- employ the design tools (briefs, thinking boards, sketches, brainstorming, mind maps, pedigrees, thumbnails, roughs storyboards and mock-ups) in real-world problems. (P, B, D)
- express themselves in a way beyond words and symbols. (P, B)
- build ideas up and test solutions with less fear of failure. (P)
- glean knowledge from the creative thinking processes across multiple professions and disciplines and reuse that information toward their own profession or discipline. (P, B, D)
- critiquing design thinking case studies for problem-solving techniques that can be reapplied to real-world problems. (B)
- practice and critique a discipline specific problem in design thinking. (P)
- encourage creativity and entrepreneurship in themselves and others. (P, B, D)
- apply design thinking to real-world situations. (P)

P = assessed by (problem based) staged, design thinking project in the student's profession or discipline

B = assessed by (writing + problem based) student's individual BlackBoard blog. Blog must utilize symbolic and visual communications and digital languages.

D = assessed by (writing) student's participation in answering course questions, discussing answers with fellow students and critiquing fellow student's project and blog posts in online Discussion List.

## 7. COURSE OUTLINE (see attachment 2 of 3)

## 8. SAMPLE TEXTS

Brown, Tim. *Change by Design: how design thinking transforms organizations and inspires innovation*. Harper Business, 2009. (paperback, ebook or audio)

Lidwell, William, Kritina Holden, and Jill Butler. *Universal Principles of Design: 125 ways to enhance usability, influence perception, increase appeal, make better design decisions, and teach through design*. Gloucester, MA: Rockport, 2010. ISBN: 9781592535873 (paperback or e-book)

## 12. PROVIDE COMPLETE BIBLIOGRAPHY

### DESIGN THINKING

Cross, Nigel. *Design Thinking: understanding how designers think and work*. Berg Publishers, 2011.

Rowe, Peter. *Design Thinking*. MIT Press, 1991.

### HUMAN-CENTERED DESIGN

IDEO. *Human-Centered Design Toolkit: an open-source toolkit to inspire new solutions in the developing world*. IDEO, 2011.

Norman, Donald. *The Design of Everyday Things*. Basic Books, 2002.

Norman, Donald. *The Design of Future Things*. Basic Books, 2007.

Norman, Donald. *Emotional Design: why we love (or hate) everyday things*. Basic Books, 2005.

Norman, Donald. *Things That Make Us Smart*. Basic Books, 1994.

### DESIGN PRINCIPLES

Weinschenk, Susan. *100 Things Every Designer Needs to Know About People*. New Riders Press, 2011.

Wong, Wucius. *Principles of Two-Dimensional Design*. Bantam, 1985.

### BRAND CONTINUITY

Landa, Robin. *Designing Brand Experience: Creating Powerful Integrated Brand Solutions*. Delmar Cengage Learning, 2005.

Wheeler, Alina. *Designing Brand Identity: An Essential Guide for the Whole Branding Team*. Wiley, 2009

## SIMPLICITY

Heller, Steve, and Anne Fink. *Less is More: the new simplicity in graphic design*. North Light Books, 1999.

Maeda, John. *The Laws of Simplicity*. MIT Press, 2006.

Norman, Donald. *Living with Complexity*. MIT Press, 2010.

## INFORMATION DESIGN AND INFORMATION ARCHITECTURE

Jacobson, Robert. *Information Design*. MIT Press, 2000.

Tufte, Edward. *Envisioning Information*. Graphics Press, 1990.

Tufte, Edward. *The Visual Display of Quantitative Information*. Graphics Press, 2001.

Tufte, Edward. *Visual Explanations: images and quantities, evidence and narrative*. Graphics Press, 1997.

Wurman, Richard Saul. *Information Architects*. Graphis Inc, 1997.

Wurman, Richard Saul. *Information Anxiety: what to do when information doesn't tell you what you need to know*. Bantam, 1990.

## USABILITY AND USER EXPERIENCE

Krug, Steve. *Don't Make Me Think: a common sense approach to web usability*. 2nd ed. New Riders Press, 2005.

Nielsen, Jakob. *Designing Web Usability*. Peachpit Press, 1999.

Quesenberry, Whitney, and Kevin Brooks. *Storytelling for User Experience: crafting stories for better design*. Rosenfeld Media, 2010.

## PROTOTYPING

Ginsburg, Suzanne. *Designing the iPhone User Experience: a user-centered approach to sketching and prototyping iPhone apps*. Addison-Wesley Professional, 2010.

Neat, David. *Model-Making: materials and methods*. Crowood Press, 2008.

Snyder, Carolyn. *Paper Prototyping: the fast and easy way to design and refine user interfaces*. Morgan Kaufmann, 2003.

## WAYFINDING

Arthur, Paul, and Romedi Passini. *Wayfinding: people, sign and architecture*. McGraw-Hill Book Company, 1992.

Gibson, David. *The Wayfinding Handbook: information design for public places*. Princeton Architectural Press, 2009.

