

What is Design?

- Design is a business tool that aims to communicate to the audience an intended goal or outcome or elicit a response or feeling that can be measured. Designers are creative problem solvers.
- Designers are multifaceted. “Today's designer has to be not only a creative artist, but also a proofreader, webmaster, copywriter, project manager and an expert in the printing process”[1]
- This can include 2D Design using image and text, 3D design of products, the interactive and digital world, research and processes.

Types of Design

- Graphic design/Communication Design
- Industrial design
- Interaction design
- Exhibit Design
- Product design
- Packaging Design
- User Experience Design UX/UXd
- User Interface Design
- Information Design
- Service Design

Industries that use design

- Advertising
- Marketing
- Print and New Media
- Technology
- Research
- Green

Essential Skill Sets for Design

- Talent
- Technical Skills
 - Essential Computer Skills
 - Adobe Products
 - Photoshop, Illustrator, Flash, After Effects, Premier Pro, InDesign, Dreamweaver
 - Computer Aided Drafting and Design/CAD Software –
 - Autodesk, Solidworks
 - Programming and Scripting Languages
 - Finalcut Pro
 - Wire Framing and Prototyping Tools like Omnigraffle
 - <http://www.hongkiat.com/blog/wireframing-prototyping-tools/>
 - Excel (Math and Calculations are very important)
- People Skills
- Business Skills
- Design Research Skills
- Problem Solving and Analytical skills
- Written and Verbal Communication skills

The importance of passion:

“Well you really need to meet them to gauge their passion, but what we produce as designers should represent what we believe in and that’s what we look for. Your design solution says a lot about you. We look for emotionality and rationality at the same time. We also look for fearlessness, cleverness and curiosity because those are telltale signs of a passionate mind at work. Surprise me – make me think “what the heck is that?” or “wow, that’s brilliant!”. Don’t be afraid to stick your neck out, and always express your passion in your own unique way” [2, Dan Harden]

Key Qualities

- Active Listening - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Coordination - Adjusting actions in relation to others' actions
- Writing - Communicating effectively in writing as appropriate for the needs of the audience.
- Speaking - Talking to others to convey information effectively.
- Operations Analysis - Analyzing needs and product requirements to create a design.
- Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Social Perceptiveness - Being aware of others' reactions and understanding why they react as they do.
- Judgment and Decision Making - Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Time Management - Managing one's own time and the time of others.
- Complex Problem Solving - Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Persuasion - Persuading others to change their minds or behavior.
- Service Orientation - Actively looking for ways to help people.
- Systems Analysis - Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- Systems Evaluation - Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system

[3, O*NET]

Things to do to be competitive

- Read, Absorb, Visit, Sketch, Geek-out
 - Start your own projects
- Get experience
 - Work for charities
 - Get internships
- Get contacts
 - Nurture a network of peers
 - Send fan mail
 - Ask for informational interviews or job shadowing experiences
- Make your own job - Freelance or start your own Business
- Create an online presence

- Submit work to competitions

Advice for entering the field

- It's kind of cliché, but the best advice especially for a young designer is to never stop learning and be terminally curious about everything.
- Knowledge and insight gleaned from observing and candid living are the best source of creativity.
- This profession is directly affected by advancements in technology, behavioral science, material science, process methodologies, business models and many more. Every time I think that the ultimate new way for doing something has been found, BOOM it's reinvented. Instead of being daunted by this flood of changeable information, revel in it.
- As a consultant you become an "amateur expert" in many fields.

[2, Dan Harden]

Get Educated

- Degree/major/minor [Options at Carnegie Mellon] <http://design.cmu.edu/programs/undergrad>
 - Double Major in HCI, BXA with Design concentration, Integrative Design, Arts and Technology Network (IDeATe)
 - one-year [Master of Arts \(MA\)](#) in Design program
 - one-year [Master of Professional Studies \(MPS\)](#) in Design for Interactions
 - two-year [Master of Design \(MDes\)](#) in Design for Interactions program
- The alternative is university extension programs.
 - [UCLA's Extension Courses](#)
 - Cal State Fullerton's [User Experience Design certificate](#)
- There are also many accelerator programs that educate professionals about usability and user experience design.
 - [Cooper's UX Bootcamps](#), Metis NYC Product Design Bootcamp
 - [Adaptive Path's](#) programs
 - [Nielsen Norman Group's](#) intensive programs
- Online Courses
 - <http://www.skilledup.com/learn-web-design-guide/>
 - <https://www.udemy.com/>
 - <http://www.lynda.com/>
 - <https://diy.org/skills>

Design related professional organizations

- American Institute of Graphic Arts - [AIGA](#)
- Industrial Designers Society of America - [IDSA](#)
- Product Development and Management Association - [PDMA](#)
- User Experience Professionals - [UXPA](#)
- Design Management Institute - [DMI](#)
- Society for Experiential Graphic Design - [SEGD](#)
- Interaction Design Association - [IxDA](#)
- Association of Registered Graphic Designers - [RGD](#)
- Information Architecture Institute - [IAI](#)
- Society of Illustrators, Artists, and Designers - [SIAD](#)
- Society for Technical - [STC](#)

Cited Articles

- [1] <http://www.graphic-design-employment.com/>
- [2] <http://www.whipsaw.com/dan-hardens-career-advice-published-breaking-product-design/>
- [3] <https://www.onetonline.org/skills/>

Related Articles

- <http://www.creativebloq.com/graphic-design/get-career-graphic-design-1012931>
- <http://scottberkun.com/essays/25-notes-for-job-seekers-in-ui-design/>
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- <http://www.usabilitycounts.com/2012/08/30/four-ways-to-break-into-user-experience/>
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