

Introduction to INVENTIVE DESIGN

Too often a textbook solution rather than creative problem solving is used when working with the problems of home modifications or environmental design. Inventive Design (ID) is breaking the paradigm of "standards" and conventional practices that we have become too comfortable with. Brainstorming with others, or by yourself, giving time to see all aspects of a design problem, will very often result in more satisfying creative solutions. It is a problem solving method used by engineers for many years and is proven to be successful in the most challenging of situations.

Universal Design (UD) is a concept of design that encourages independence and inclusion by eliminating barriers. It is seamless in that it is invisible, site specific, and flexible. UD addresses the global diversity of population, culture and economics, the growth of the aging population, the desire of independence and equal opportunities for people with disabilities, and the need for a safer and healthier world. To many designers and architects applying UD concepts to their designs is a challenge they want to avoid; to a growing number of these professionals the challenge of achieving accessible design is what they want. As more people understand the intent, concepts and principles, a broader base for a support system will be created. The challenges will become opportunities for creativity.

Parameters to create design solutions have to be flexible too. Recognizing the need to change our attitude about design, and using the concepts of UD as a goal, we have to expand our way of thinking to create environments and products that would appeal to all populations. We have to change our paradigms, learn to look at things differently, and according to Dr. Tomasz Arciszewski, Professor of Inventive Design (ID) at George Mason University, learn to go past the routine answers to develop novel creative concepts that are marketable and feasible

Inventive Design frees the human brain from thinking in fixed patterns, and channels and leads to lateral thinking. In observing problems in their entire dimension, and not fall in blind pursuit of new technologies, we can learn to see potential in resolutions within feasible solutions.

Through the methodology of ID we use the process of brainstorming to integrate various traditional design methods, using our own limited background knowledge, and our motivation to create solutions to what seem to be insolvable problems, with inventive conceptual design.

In Inventive Design we learn to identify problems and understand the parameters within which we must work. Through the process of brainstorming we learn to see a variety of aspects of the problem, and either with working partners or by with ourselves create options for a solution. We then develop an outline for implementation and costs, and make a decision based on collected data. This

doesn't mean that a lot of money has to be spent on our solutions. It doesn't mean that we have to be rocket scientists to come up with new ideas. It does mean we have to explore each problem, as it exists, and create for the realities of human frailties, abilities, culture diversities, universally designed spaces and products that will be people friendly and marketable.

The schedule for this class, Inventive Design for Creative Solutions in Universal Design, will be broken up into five phases.

- Review of Universal Design principals.
Viewing real examples of good and bad design solutions. Discuss possible alternative solutions.
- Learn to brainstorm. Review the process. View actual examples of the brainstorming process results in a university setting classroom practice.
- Practice problem solving by brainstorming on real problems as presented in class by the presenter.
- Create small groups of participants to resolve either an environment or product problem using UD concepts and ID as the process. Problems will be either given by presenter, or if requested, problems taken from participants. The presenter will facilitate each group and guide them through the process.
- Review and discuss each solution.

The goal of this intensive is to introduce Inventive Design, a methodology that will enable the participant to change old paradigms, and institute new feasible design solutions without getting rid of the old ones; create out of the box solutions; encourage solutions that incorporate UD principles and concepts, and create doors of opportunities that address the growing safety and environmental concerns of today.