What You (As A Student) Do In Design School

To become a professional designer requires that you acquire and develop a professional level of:

- knowledge
- skills
- sensibility

Someone who only has even a high level of knowledge without skills or a design oriented sensibility is perhaps a historian, or an observer of design.

Someone who has even a high level of skills without knowledge or a sensibility is a draftsman, or an 'AutoCAD monkey.'

Someone who has a sensibility about design without knowledge or skills is a hobbyist, or a dilettante. (The world of HG tv perhaps).
To become a professional, practicing designer requires that you develop, acquire, refine, and make use of professional knowledge, skills and sensibility.

As a working point of view, it is useful to think of something that is 'designed' as generally being:

- organized
- clear
- interesting
- elegant
- compelling
- complex

These descriptive words are by no means the only ones that can or should be used to describe 'designed' but they are almost always fundamental to design. Think about them and challenge yourself to make your own design work have these qualities and characteristics.

**Learning is a process**

It is the first day of classes, fall semester. You are walking into the studio where you will meet your professor and your classmates, and find a place to begin your study of design.

The feeling of uncertainty that accompanies new experiences is a feeling that is shared by almost everyone. If you look around the large bare room at the other twenty students, if you look closely, you will observe that they are doing exactly what you are doing; looking around at the other students, wondering what will come next.

You want to become an interior designer, or an architect, or a landscape architect, or a furniture designer, and so you applied to a design school that appealed to you, you worked diligently, took the required courses, made a good portfolio, and you have been fortunate enough to have been accepted through the portfolio review process.
Congratulations! Good work. Clearly you have been doing well in a variety of your academic undertakings. There are a lot of people who would like to be in your spot. You are now poised at the starting line, in position to have a four or five year learning experience that will shape the way you see the world for the rest of your life.

No one in this studio really knows what to do, because the event is just beginning. Over the course of the quarter this large room will be transformed into a place that has real meaning for you. It will become familiar to you, perhaps too familiar, and it will be the place where you forge the foundation of your design career. If you have a friend or a relative who is a designer you may know a little bit or a lot about what different types of designers do in their work. If you had an interview with one of the professors at your design school you may know something about the program you are beginning.

Whatever you know or believe before the first day of classes, it will not fully prepare you for your formal entrance into the world of design and design education. Design school is a fascinating mix of experiences. You will find in your design school tasks and assignments that are difficult, beautiful, time consuming for sure, creative, irritating, fulfilling, frustrating, satisfying, challenging and humbling.

Designing things, any things, like pens, glasses, posters, chairs, bathtubs, desks, lights, rooms, automobiles, houses, large buildings, parks, and city plans, is a complex activity that requires persistent and dedicated hard work.

Good design does not come into existence easily, even after you become a good designer. If you look at the world around us, most of the man made contents of the world are poorly designed, if they are really designed at all. Much of the built world is downright ugly, non functional, wasteful, overpriced, and poorly constructed. If designing was easy, you would not have to go to school for four or five years to learn how to do it.

The saving grace of most complex activities that human being have invented, like playing the violin, playing tennis, and designing objects and spaces for human use, is that they can all be learned. The way these activities are learned is through an incremental, step by step, process, moving from elements and ideas that are simple and easily grasped, to those that are more complex and more difficult to understand.
The key that lets you in to the world of design is what is called the design process, and should probably be referred to as 'a design process', as it does not seem that many people agree upon any one, single process that works for all designing individuals.

**Energizing your mind and body**

Your first studio class has left you with a world of questions and thoughts, all buzzing around inside your head as you leave and walk across your campus.

Your professor has given the class an initial design project. It is an 'assignment', much like other assignments that you have had before in your life, but then again, it is nothing like any other 'assignment' that you have been given before. Your professor did not really tell you what you had to do.

In math classes, you were always told what you were trying to get to; an answer that resulted from using the equation. In history class you were asked to list events, and explain their relationships. In English class you were asked to interpret the meaning of a story, or perhaps to write a story of your own.

Here, in your design class, you were told to "make a place for a hand" using only heavy white paper. Or perhaps you were told to "make a space" using only modeling clay. Hmmm. It seems very mysterious, and it seems that the professor is holding back some important information. Hmmm. No one else seems to know what to do either.

Some of your classmates think it is a weird assignment. Some of them think it is cool. Hmmm. You need advice, and you need it right away! All right, here it is; don't worry about what you do not know, don't worry about what the professor may or may not want, don't worry about doing it 'right' or 'wrong', and most importantly, make as many versions of the project as you possibly can! "As many 'versions' of what?" you are thinking. As many versions of whatever your thinking, powerful, and creative brain leads to you make!

Activity breeds thoughts, and your design activity will also breed interaction with your classmates, and with your professor. These interactions will be where you develop an understanding of your design decisions, and an understanding of the design decisions of other designers, from the person sitting next to you, to the works of Frank Lloyd Wright and Charles and Ray Eames.
Making things energizes your mind and your body. Your body learns how to use tools through using them. Your mind learns how to do things by doing them. At first your attempts to do the things that design school asks of you will be awkward, crude, and generally speaking, like the work of a 'beginner'. Good work! That is great! There is nothing wrong with being a 'beginner' when you are a beginner. Moving from being a beginner to being skilled and knowledgeable is one of the great experiences in life. It happens gradually, and it takes more time than you want, but when it happens, it is very satisfying, and worth the hard work.

To be a good designer, and to produce good work, you will have to do research and you will have to think about the project and the requirements of the project. There is a great deal of knowledge that you can only acquire by doing reading and research. In designing there is also a great deal of knowledge that only comes through practice; producing sketches, drawings, and models of the your project.

My own designing experiences, and my own design teaching experience tells me that it will serve you far better, as a beginning student, to spend more of your time making, sharing, and presenting, your design ideas rather than 'thinking' for hours and hours before you make the first mark on the sheet of paper, or before you construct the first pieces of your model.

**The role of imaginative perception**

A person who designs things, any things, large or small, products, such as lighting fixtures and pens, or spaces, such as offices and dining rooms, or complete buildings, has to be able to envision new and improved versions of those things that already exist.

This does not mean that designers are wizards, or that they have supernatural abilities to see into the future. What it means is that a designer has to be able to see the world around us and imaginatively transform the substance and meaning of what is there into new works. Perception of this character can be developed through practice and training.

The training required to develop the ability to see what is really there is called education. The practice required is the course work you will be given through your design school curriculum. There is another mode of education in which a novice can learn about designing and building. This mode is called apprenticeship. Before there were many schools of design, an interested
individual would seek employment with an established 'master' in the field. Through exposure to the knowledge, skills, and attitudes of the master the apprentice may develop into a capable practitioner. Typically this process takes many years, and while the knowledge gained may be broad, accurate, and useful, a successful apprentice will not have a degree, or a formal record of their experiences.

Today many academic design programs respond to requirements established by accrediting bodies that in turn relate to professional and legal requirements established by individual states and nations. In the United States, each state legislature establishes definitions and requirements for the practice and/or use of the title of each legally regulated design profession.

Architects, interior designers, landscape architects, and engineers are typically subject to specific legal requirements that are intended to insure minimum levels of professional competence. These legal requirements vary from one state to another, and you should investigate the specific requirements of your state.

You can begin this investigation by talking with a local member of a professional design organization, such as the American Institute of Architects (AIA), or the American Society of Interior Designers (ASID) or the International Interior Designers Association (IIDA).

Most of us take for granted what we see around us, and we would probably be hard pressed to list a dozen specific characteristics of a room, of a building, or of an automobile.

Designers, on the other hand, have to be able to see things that other people do not see and have to be able to articulately describe what they see and explain why it is important. When a designer walks through a series of rooms, a mental cataloging of information takes place. The heights, lengths, widths, number and sizes of openings, orientation to sunlight, materials and their condition, colors, volume of space, integration with heating, cooling, electrical, and plumbing systems are all important pieces of information that may affect how the design or renovation of a space may take place.

A designer sees a space as an assemblage of many different elements, characteristics, and qualities. This type of information is there for anyone to see, but unless you know how to look for it, and what it means, you will not
see it. The ability to see this type of information, and to use it as a beginning for a new and improved work is why designers get paid to do their work.

Taking apart and putting together Successfully completing a design curriculum requires that students make intellectual discoveries with regard to issues, ideas, and the character of design work and that they develop an understanding of their own work in terms of these discoveries.

The design school environment

Student design work exists in two distinct realms, the public realm of presentation, critique, and portfolio, which is largely a group experience, and in the private realm of their own design process, which is largely an individual experience. Work in this private realm includes the search for inspiration and ideas, and the struggle to move from conditions of uncertainty toward certainty, and from ignorance toward knowledge.

Students can experience public triumphs as well as public disasters and private victories as well as private failures. Design students quickly realize that their school experiences are quite different from the experiences of a friend majoring in a liberal arts field such as history or comparative literature.

A design student's first major discovery is that design projects take more time to complete than they had realized. At large and small schools alike, the buildings that house design programs on campus, are sure to be lit up late at night and occupied by students while many other parts of campus are dark and quiet and other students are asleep. This condition is true regardless of whether the design program is architecture, landscape architecture, interior design, graphic design, or product design. The explanation for this condition is twofold: one, is the nature of design activity, and it is a powerful force, the other is tradition.

Design is both an art and a science, and while it is not meaningful to separate the two, it is clear that the art of designing is revealed in good works of design. That designing is an art also means that there are acts of aesthetic appreciation that are a significant part of learning how to design.

An aesthetic appreciation of a work is a qualitative and to some degree a subjective experience, and cannot be quantified. Students may take this either as a positive or as a negative characteristic of designing. We may think
of quantifying an undertaking as a technique for making it more understandable or more easily finished.

A desire to know the quantity of work required leads students to wish that a teacher could truthfully tell a student "You will be good if you do ten drawings" whereas the actual truth is more likely to be "Doing ten drawings will be good for you." The notion of quantifying the work needed to learn to design does not make sense because of the character of the work. Even so, if we were to attempt to assign a number to the tasks involved in designing, to the pieces of information needed to be assimilated, and to the iterations of acts like drawing that need to be practiced, that number would be immense and beyond comprehension. Imagine being told by your tennis instructor that to develop a good backhand you must go out and hit two million backhands. That would be a Herculean task, and could consume several years of your life. In some sense, while it may be possible to describe designing in quantitative terms, it is more meaningful and appropriate to describe design activities in terms of process, in terms that build connections between the activities involved in designing and knowledge required to design.

Viewed as a process, it is possible to undertake a complete range of activities within the context of a small design project. Therefore, in school, students are able to 'design' much as practitioners 'design.' The scale of the design project may be smaller in school, and some of the relevant content may be different or omitted in school, but otherwise, the range of activities can be the same.

Designing is primarily a matter of qualities that are sought after through finite, and therefore, quantifiable physical pieces and parts. Doing a drawing once may fulfill the quantitative portion of an assignment, "Do a perspective drawing for Tuesday," but it may fall far short of the qualitative requirements of the that drawing. "Do one perspective drawing for Tuesday that demonstrates human scale, articulate use of materials, and a proportional system." The questions start immediately. "How articulate do I have to be with materials?" "How thoroughly does the proportioning system have to be used?" "How do I know if the space has a human scale to it?"

The answers to these questions are what the design program is about. To answer these and other similar questions that are raised during the course of the design program, a student has to start at a beginning point and try to understand the fundamental aspects of design. One of the traditions of design school and design practice alike, is that long hours at the drawing table are the constant companion of a designer. For other professions and fields of
study, time spent on a task may be measured in ten minute billable increments, or in office visits, but in design practice, time is measured in blocks of hours and multiple hours.

In design practice, work on a project is estimated by adding up the number of work hours required to complete each sheet of drawings. Typical sheets of construction working drawings can take from forty hours to more than one hundred and twenty hours of work to complete. One hundred and twenty hours of work is roughly three weeks of work, averaging eight hours of work per day. Understanding the complexity of the work involved in these kinds of drawings is not possible for a beginning student, but understanding the large amounts of time that need to be devoted to producing a good drawing or a good model in school is quickly grasped by most students.

The need to spend large amounts of time to produce design work originates in the basic nature of design activity and has developed into a form of ritual activity in design schools. Charette is a French word that means 'little cart'. At the Ecole des Beaux Arts in Paris during the nineteenth century students would work on their projects up to the last possible moment before jury time. Students would then transport their work to the jury gallery in a little wheeled cart, the 'charette'. The term charette has evolved to mean an intense period of work culminating in a major presentation. The ritual aspect of working long hours late into the night sometimes has very little relationship to the requirements of the project at hand. It is a ritual that is sometimes carried out for its own sake, simply because that is the way design students perceive the nature of design work, and the nature of design school.

Often, design students 'pull all nighters' as a matter of camaraderie, out of tradition, and partly out of necessity. There are several counter productive aspects of this traditional, ritualistic behavior. One of the most serious problems with this charette activity is that the student is exhausted, physically and mentally by the time the project is due to be submitted and critiqued.

Design is a challenging and complex subject for discussion under the best of circumstances. When an entire class of students shows up for the final presentation and critique of the project totally exhausted and literally falling asleep in their chairs, it becomes clear that the critique will not be the lively, educationally beneficial event that the faculty would like it to be.

Another problem with the all night charette is that students may avoid making decisions that contribute to the development and strength of their design
projects because they view the all night charette as the answer to their uncertainty or lack of work time. The all night session just before the project is due is too often seen as the moment of truth by a student. Having either avoided making important decisions, failed to do relevant research, or failed to commit to a design scenario, the student is now faced with the burden of trying to tie together what in all likelihood are disparate parts of a scheme that have not been given the time and the attention necessary to become a coherent, ordered whole entity.

There are ways to avoid this scenario that involve both the role the teachers play in structuring design projects, and the role students play in responding to the projects by producing intelligent, well crafted, and creative design work. In design office practice the long hours put in on a project are usually the result of pressure put on the designer by requirements and deadlines established by consultants, contractors, financial institutions, and clients.

It is the responsibility of the teachers to structure the design project in a manner that takes advantage of the nature of the development of design work. The critical concept here is development. This is the characteristic of designing that is the most difficult for students to understand, because it requires that we view changes as positive and beneficial, rather than as distractions, diversions, or unnecessary additions to the work load. There is a tendency on the part of students to view changes in their design drawings, models, and ideas as negative and counterproductive occurrences.

While there are a range of models for understanding the design process, every model acknowledges that an expansion of knowledge and understanding through a testing of proposals and ideas is critical to arriving at a well designed project. Students see the goal of completing a design project on a straight path directly ahead of them. The goal of their project is a complete and correct design solution. The very fact that the word 'solution' is often used to describe a work of design is problematic. The use of the word 'solution' conceals and trivializes the true nature of design investigation, which is much more of a dialectic, interactive, questioning, and responding activity than it is a problem solving or solution oriented activity.

Works of design would be better understood, both by their designers and by observers, clients, and users, if they were broadly referred to as proposals, rather than solutions. The work of each student is, after all, his or her proposed design for the project. The set of criteria and requirements put forward in the project description or program simply establishes a scenario, or
set of conditions, within which the student must formulate a response and then carry that response forward through prescribed design documents, using a range of appropriate media. In school each student is encouraged to formulate a response to a design project that as a starting point has a connection to, or meaning for him or herself.

It is important that students recognize their initial design response as an expression of pre-existing conditions that are the result of their entire life’s experiences. These pre-existing conditions are what make each student different from another. The pre-conditions various students have been exposed to are quite disparate both in kind and in their relevance to design education. Because of this, it is not always clear or easy for students to understand which parts of their own background are valuable and worth holding onto.

A student's previous experiences can be a source of useful information that influences attitudes that may be helpful in developing complex and sophisticated works of design. It is frequently true that a student's previous experiences serve as an obstacle to understanding new ideas, and accepting new information. The statement "everyone has their own ideas" may be true, but the value and relevance of those ideas are not always equal.

**Interior Architecture is a major in which**

*making things*

(the active, engaged, physical process of making drawings, models, statements, objects, spaces)

*defines who you are*

(as a designing person, having ideas, knowledge, beliefs, desires, points of view)

*and*

*how well you are doing*

(as a design student, working to expand your horizons, develop skills, and discover new points of view)