

Barrier-Free Design

An Introduction ID317

Page 1 of 2
JPM FD '00

Most of us, at some time in our lives, will experience a degree of disability or reduced performance due to accident, disease, or ageing, which could temporarily or permanently prevent us from carrying out tasks which had not previously represented any challenge. From an ankle sprain, or a broken limb to potentially life threatening diseases, any of these may cause a change in our lifestyle or abilities. A small, but economically significant part of our population, because of inherited, or developed disabilities, will never have the opportunity to perform functions considered straightforward by all who we call "able bodied". Traditionally, the design and operation of the built environment did not require an understanding of disabilities or a concern for accessibility. Architectural goals, especially those for public and monumental buildings, have often conflicted with ease of access, needing all to follow the requirements of ancient architectural aesthetics, combined with modern security concerns. However, the traditional, heroic architectural and administrative approaches, which disregard accessibility are no longer viable; history has moved forward, ushered by modern civil rights legislation and the history of mainstream architectural and administrative systems design must now follow suit. Form once again will follow function into a new era.

Barrier free design is not just performed to aid those with disabilities, although this is a legal requirement for all places of public accommodation. Barrier free designs can make life safer, simpler and more user friendly. Barrier free design requires an 'inclusive' approach. To many designers, this type of thinking may seem obvious, but designers and operators of the built environment have only been obliged to take this approach since 1992, when the Americans with Disabilities Act (of 1990) became effective. Prior to 1992, exclusivity and life-safety requirements, such as building construction codes, fire codes and security issues, which require a 'separation' approach to design, were first-order mandates. Safety and security requirements are as important as ever, but must now share priority with federal mandates for an inclusive, accessible environment. This represents a major change in thinking for building design, property management and business operation and this paradigm shift has become a subject of great controversy. Indeed, the concept of accessibility, in some business and local government circles, has been misunderstood, even seen as an attack on corporate America's freedom to do business or on the sovereignty of state and local government administrations. Barrier free design has become a fertile area of growth for legal professionals and civil rights advocacy groups as well as for designers and looks set to continue this pattern in the future.

Successful barrier free design requires a clear idea of the balanced needs of the public, a knowledge of good design principles, a good understanding of building codes, an in-depth understanding of the ADA and applicable civil rights laws. Barrier free designers require a command of specialist design, legal requirements, humanitarian thinking and general knowledge and will often need to adopt a systems approach to problem solving. The work and the duty of responsible designers is to make their best efforts to enable all people to live at their best and to reach their highest potential. Thoughtful, informed designers can help reduce the hazards of daily life by eliminating barriers to performance presented by the built, or the administrative environment. For architectural and interior designers, schooled and experienced in solving physical design problems, it is attitudinal and administrative barriers which often prove the most intractable. However, despite the complexity and controversy, it is a designer's legal obligation to ensure that completed designs are functional and accessible, it is also their duty as professionals to ensure that their designs make good sense and are aesthetically pleasing. There is no inherent reason why barrier free designs should not be both functional and aesthetically pleasing.

Barrier Free Design demands awareness of the materials, means and methods of creating barrier free interior environments and the access routes to them. In ID 317, commercial and residential barrier free needs and requirements are examined. The Americans with Disabilities Act (ADA) will be studied and title III of the ADA Accessibility Guidelines (ADAAGS) will be covered in depth. An awareness of the spirit and letter of ADA legislation and a basic understanding of the nature of the bureaucratic machinery which has been assembled to administer and oversee the important and far-reaching ADA legislation will be attempted. Also, an understanding of design universality, referred to as Universal Design, the barrier free needs of our population and some of the many design considerations which help improve our practical living and working environment will be discussed. Study of this class, combined with wider reading of the subject will give students a foundation in the legal requirements and practical needs of barrier-free design in the built environment.

Instructor: Michael Colgan

Syllabus:

A good understanding of Barrier-Free Design is essential for interior designers, architects, builders and managers of human resources and property. Mandates for barrier-free surroundings became law in 1990, when President Bush signed the Americans with Disabilities Act (ADA), which became enforceable in 1992. Since then, the growth in accessible environments has increased exponentially along with a growth in law suits and sanctions for non-compliance. Non-compliance penalties have become increasingly frequent and severe. Action on the ADA is not optional; its importance is indicated by the ADA's direct Federal Government oversight. Federal regulation often increases complexity and potential for litigation and confusion (a case in point is the U.S. tax code). However, ADA legislation is also the engine which has driven a boom in barrier-free design services. The required mixture of technical, legislative and creative design knowledge makes barrier-free design a fast-paced and professionally demanding design specialty. The ADA laws have helped to increase the ratio of persons with disabilities who can enjoy the blessings of modern life, while making a positive contribution to society.

Understanding ergonomics, anthropometrics and universal design concepts helps interior designers become better barrier-free designers. Creativity, knowledge and design skills help to avoid or mitigate the potentially disastrous and usually very expensive consequences of misunderstanding ADA rules and barrier free needs.

Intent:

The intent of this class is to provide an overview of the design requirements and legislative mandates which cover this interior design specialty. The class will provide an overall appreciation and understanding of barrier-free design and the methods, materials and compliance mandates which must be addressed by interior designers. The need for creativity and good aesthetic design amid increased regulation should not be forgotten.

Structure:

The class will comprise a mixture of lectures, discussions, class study and project work. Occasional guest speaker forums may be used when possible and appropriate. There may be two short field trips to nearby locations. Students will need to visit additional locations in their own time. Students will use critical observation as well as individual and team techniques to evaluate and report on existing designs and discuss potential improvements in the light of advancing knowledge. Class hours will be devoted to lectures, study forums and analysis. Homework will require critical observation, background reading, including the coursebook, Beautiful Barrier Free as well as ADA statutes and the Code of Federal Regulations, 28 CFR part 36. Thorough preparation for class contributions and individual coursework will be required. An individual and a team research topic will be assigned. Internet research, analysis and reporting is required. Individual and teamwork projects will include site selection, photography, design, legal analysis and site reporting.

Learning Goals & Professional development:

This class provides essential information for the understanding of current Barrier free needs, research methods and promotes modern ways of thinking about the designed environment. Drafting and design skills will be brought into use during this course.

Evaluations & Attendance:

Attendance is mandatory, more than 2 - unexcused absences can result in grade reductions or lead to a failing score. Coursework will comprise 50% of overall grade, 30% will be by written examination, 20% attendance and class/team participation. All sections must be passed to aggregate a final grade. Absence, lateness or missed deadlines attach significant penalties.

Barrier-Free Design

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Proposed Syllabus, Homework & Coursework

Grade Marking: A 100-91%, B 90-81, C 71-80, D 61-70, F 60 or below
Attendance & involvement 20%, exams 30%, project coursework 50%,

Also required: A 6-hour minimum service learning activity.

Course Book: Beautiful Barrier Free, a visual guide to accessibility, by Cynthia Leibrock

Additional texts (available on loan & return status) :

i) Department of Justice Code of Federal Regulations 28 CFR Part 36

week 1	Introduction to barrier free design course requirements, Ethics, Legislation; Ergonomics & Anthropometry	HW. cw 1,read pref., BBFchs.1,9, Ass. readg.
week 2	Civil Rights, Parking & Ramps, On campus Field trip wheelchair use, trigonometry review.	HW. cw 2,read BBF ch. 6, 8 + assignments
week 3	Entries, passageways & doors; Bathrooms & toilets proxemics, discussion on ADA law and design; Guest Speaker.	HW. cw 3, read BBF ch 3,4, 5 + assignments
week 4	Elevators, stairs, railings; Bathrooms & toilets	HW. read BBB ch. 6,7 + assignments
week 5	Anthropometrics, ergonomics, Universal design	HW. cw 4, read BBF ch 2,7 + assignments
week 6	ADAAGS, UFAS, CFR, FHA ; Disability & Accessibility discussion on technology transfer	HW. review BBF
week 7	MID TERM EXAM; review and discussion	HW. Individual & team research
week 8	Building codes, fire safety, ADAAGS; Projects 1 & 2 assigned	HW. Design project #1
week 9	Designing for peoples' lives; Barriers to barrier free design	HW. Design project #2 , ADAAGS
week 10	Fair Housing Act requirements; codes & ADAAGS classwork essay #2 due, universal design discussion	HW. Design & research projects, ADAAGS
week 11	Design practice w/ universal design approach	HW. Research & field work
week 12	Design project #1 ADAAGS; PRESENTATIONS	HW. Project work
week 13	Design practice; Thanksgiving	HW. project & team research work
week 14	Review of class & coursework; Special topics	Web research summaries
week 15	Project PRESENTATIONS; Final review	HW. Prepare for final exam
week 16	FINAL EXAMINATION	

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Coursework #1, individual cw. Value 5% of overall grade

ADA Title III advocacy and argument

Background:

A law suit concerning ADA title III access is to be tried in court. This is the first suit of it's kind in Hawaii to go to trial. A large national corporation which owns and manages malls and commercial properties and their tenant, a small, local business with 20 employees, are both being sued for damages by Nailem & Cash, attorneys for the Plaintiffs, three disabled people, who claim to have been discriminated against due to their disabilities.

Nailem & Cash, prosecuting attorneys at law, have identified a potential legal niche market in ADA compliance and have begun to specialize in the field of Title III compliance issues. Mr. Nailem is a disabled american veteran and has needed to use a wheelchair since being disabled while on active duty in the Navy. He is a widower. Mr. Nailem studied law on the GI Bill and has practiced for some years in the area of Civil Rights. Mrs. Watanabe-Cash graduated third in her class from Harvard Law School and harbors ambitions of becoming a Supreme Court Justice in the State of Hawaii. She is married and has two young children.

Bodget & Fairport, defense attorneys in the case for the Landlord, are experienced practitioners of Tort Law, but are not ADA specialists. Ms. Bodget was a General Counsel for the City & County for ten years before retiring to start her own business in general law, she is unmarried. Mrs. Kim-Fairport practiced law in california before coming to Hawaii three years ago, she has three children, one of whom has Downs' Syndrome.

The landlord can call upon the services of an ADA specialist, who is of counsel to them in New York, but who is not licenced to practice law in Hawaii. The small business owner has been established in Hawaii for thirty years. The business, which is family-owned and operated, has retained the services of Mr. Dirk Cheup, a long-time family friend and sole practitioner in general law. Several Hawaii-based ADA specialists, who are not lawyers, have been interviewed by Mr. Cheup to act as advisors in the case, but Mr. Cheup has not yet decided which advisor, if any, to hire.

The Judge, Tatsuo Oki, has no experience in ADA law. He was born and schooled in Hawaii, studied law and practiced for 8 years before becoming a judge twenty years ago. Judge Oki has been a close friend of the Governor, Ceasar Fong since high school.

The Task:

You are to write a position paper, of approximately 400 words, presenting you interpretation of the viewpoint of one party, expert or counsellor in the lawsuit. You must take a definite position, which should be defensible and relate directly to the ADA law and to the case.

Due week _____, beginning of class 2.
set by agreement w/students.

Worth 5% of overall grade

Chaminade University, Department of Interior Design

Barrier Free Design ID317#

Instructor Michael Colgan

Coursework #2, individual cw.

Barrier Free Design Topics of Local Media Interest

Background & Task:

You are a Design Associate for the Chaminade Design Group (CDG) Barrier Free Report. Your assignment is to research the local media for topics having to do with Barrier Free or Universal Design and then outline and investigate an area which either shows an advance in the field of universal design, or one which illustrates a problem or conflict in this area. The Barrier Free Report Editor needs finished editorials of about 300 words, plus two illustrations or pictures. The topic need not be news, but should be of recent origin. The Editor will also consider design topics of relevance from outside the locality, which have a bearing on local problems in universal design. The Editor appreciates stories in which CDG can suggest a solution or improvement, since this shows CDG to be a progressive organization, actively promoting it's mission declaration: "towards the future of design".

Work due week _____, beginning of class 2.

Worth 5% of overall grade

Chaminade University, Department of Interior Design

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Coursework 3, individual cw.

Barrier Free Products & Universal Design

Background & Task:

The Chaminade Design Group Barrier Free Report wishes to showcase a number of products manufactured for the universal design market in it's Towards the Future column. Your task is to find, evaluate and report on a recent innovation which you consider may be of interest to the readership. A graphic illustration (picture, drawing or sketch) must be incorporated into your text of about 250 words. Catalog cuts etc. are disallowed because of copyright laws. the Report wants concept designs to be included in the showcase and has asked associates for any product ideas they may have. You are aware that an innovative universal design concept of yours showcased in such a prestigious publication could be a definite career enhancer. Present your findings in class on week 5, class 2.

Deadline: week _____, beginning of class 2.

Worth 5% of overall grade