

B.DES

PRODUCT DESIGN



AJEENKYA
D Y PATIL UNIVERSITY
THE INNOVATION UNIVERSITY

DYPDC School
of Design

A black and white portrait of Dilip Chhabria, a man with glasses and a mustache, wearing a dark shirt. He is positioned in the upper right quadrant of the page, with an orange background behind him.

DYPDC SCHOOL OF DESIGN

DYPDC brings together the complementary strengths of Ajeenkya DY Patil University and that of legendary Dilip Chhabria.

DYPDC offers highly experiential, hands-on programs with a unique learning experience to explore new ways of generating cutting-edge solutions using creativity and design principles. The primary focus of DYPDC programs is to ensure that its students are industry-ready, able to think strategically and provide design solutions in a business context. Education at DYPDC is about learning how to think. Our faculty encourages students not become passive recipients of knowledge, but facilitate their path of discovery. With small class sizes, students are encouraged to think critically and express themselves clearly.

Design is everywhere, in everything. There is no one definitive definition that defines design. Design is not just about aesthetics. In fact, design is as fundamental as the air we breathe. Design is in the way your feet fit into your slippers, the way we uncork a wine bottle, the way we get the cap off a tube of toothpaste, the environments we work in, the way we order a pizza. We don't notice these things because we assume they ought to be there and ought to work in a particular way.

DESIGN IS EVERY WHERE

Design must be understood as a word that describes both a process and an outcome. It is the process of turning ideas into material things, and adding value to products or services by interfacing with functionality, technology and aesthetics.

Steve Jobs, CEO of Apple Computers said "In most people's vocabularies, design means decoration. But to me, nothing could be further from the meaning of design. Design is the fundamental soul of a man-made creation".

Chairman of The Idea Factory, Arnold S. Wasserman, perceives design as "the integration of art and technology for the creation of products, communications and environments that serve human needs. Design is creativity directed toward a purpose."

Today's consumer has shifted from conventional commodities to novel experiences that satisfy not only their basic needs but their sensorial, intellectual, emotional, and cultural needs. Creating novel 'experiences' for consumers necessitates focusing on, besides their basic needs, deeper aspects of their lives, their emotions, aspirations which are the prime objectives for a designer.

The UK Department of Trade and Industry (DTI) defines design as 'Design is a structured creative process. Design is readily associated with industrial

product design for manufactured products – specifically the 'look' of a product. However, the application of design is much broader, for example designing for function; for aesthetic appeal; for ease of manufacture; for sustainability; and designing for reliability or quality and business processes themselves.

Design is the number one determinant of why a product stands out – or does not. It is a process of creativity and innovation channeled towards the development of tradable products and services in a multi-disciplinary manner that involves the sciences of materials technology, engineering, ergonomics and manufacturing.

Design is not just as a finishing-off process, but is something that drives enterprise strategy. All competing products will have basically the same technology, price, performance, and features. What sets them apart is the design. **Ten years ago, companies competed on price. Then it was quality. TODAY IT IS DESIGN.**

In summary, Design as a career offers tremendous prospects. It is a career where you have fun everyday, earn better than others, and get a job more easily. In this career you will have the pleasure and satisfaction of creating something new and opportunity to become famous.

BACHELOR OF DESIGN PRODUCT DESIGN



The program will expose the students to theory and practice of state-of-the-art product design and development through an array of specifically introduced topics coupled with hands-on skills, appropriate methods / toolkits and their application for a stated purpose.

Products play an integral role in our lives. Someone, somewhere conceives a utility, identifies a problem and provides a product solution to meet the purpose. In an organization, it is a structured activity to develop new products for an existing market or to create entirely new markets by introducing a distinctive product. Any new product development starts with knowing whether there is a gap in the market or there is a market for that gap. It considers whether it is possible to make the product technological-ly and over and above everything, seeks to know whether it is desirable to the people who are going to use it.

The program is grounded in diverse fields of knowledge, which acts together in conceiving and developing a new product. It follows an inter-disciplinary approach to address the broad range of issues facing an Industrial Designer such as marketing, corporate strategy, user research, aesthetics, manufacturing, user interaction, materials, etc. The program is designed in such a manner that it integrates these multiple disciplines and amalgamates with the core industrial design practice so as to enable the students to develop new ideas, concepts, products and solutions.



In today's complex world, a mere product, which looks nice and functions well, is not enough. A product in order to be successful today needs to be much more than just an artifact. It should be part of a larger system and should have an emotional connect with its user. The bottom line is that a product manifests in many forms and this program prepares you to tackle these varied requirements.

The program is centered around the three aspects of design i.e. design thinking, design making and design doing. Design thinking helps to find a problem, reframe a problem, understand people and realize their unmet needs. Design making focuses around design skills such as ideation, drawing, and sketching. Design doing is the final frontier where one understands the technical possibility, business

feasibility associated with the concept and ends up with digital and physical prototypes.

The program invites students who are passionate about developing innovative, cost effective products of high aesthetic value. The program prepares students to be exceptional and confident practitioners for the changing needs of the industry.



THE PROGRAM

The program is an interactive learning experience. Teaching is by way of facilitation so as to develop critical thinking skills amongst the students. Core of the teaching is studio based, project oriented and blends lectures, tutorials, and intensive group discussions seamlessly to provide a practical, hands-on experience to the students. The teaching is highlighted with specially created assignments and team exercises. Guest lectures are regularly arranged to provide industry insights. A small class size creates opportunities for meaningful interactions with faculty and amongst peers

Students are taken through design fundamentals which consist of four subareas:

 Design History

 Hand-drawing

 Graphic Design

 Form Studies

Integration of those subareas aims at the acquisition of design knowledge and skills from several perspectives and development of creative abilities. An industrial designer is expected to master the understanding of design aspects in a historical context.

Professional designers use specific drawing skills in the design-process as a means of communication, not only to themselves, but also to colleagues and clients. Drawing is learnable like reading and writing; a special talent is not a condition, but a substantial amount of practice is necessary.



The student will learn to work with form, color, and the meaning of form. Students will get exercises in plasticity (wood, clay or stone), form transitions, proportioning and coloring. Subsequent to model making, students will express form and meaning in mood boards and collages. Students are taught to use digital tools and aids.

It is important for companies to develop and introduce new products on a regular basis. One of the main issues facing any company is the decision of which new products should be developed. Students will learn how they can select future directions for a firm based upon a solid understanding of several strategic considerations. Several tools and (market) research methods are presented that are available to product developers in guiding the strategic product innovation decisions.

Human-product interaction deals with the way in which we perceive, understand, use and experience products. This interaction is substantiated by our sensory, cognitive and motor systems. In order to understand how we interact with products, knowledge of these systems and how they limit, enable or facilitate interaction is essential. Our knowledge and insights come mainly from the human sciences. Relevant knowledge and insights will be addressed in a thematic approach.

Themes include: use-cues, emotion, sound, cognitive fixation, touch, safety and risk awareness, discomfort, visual aesthetics, multimodal experience and inclusive design.

In order to be able to create products for people, product developers need to know what kind of products people want. What are their desires, needs and problems with regard to current and new products? Students are introduced to methods of customer research that can be used to collect information from customers to support the different stages of the product development process.

The major part of the course work is a sequence of design studios. The design studio is a project-based learning environment, which provides instruction around the design of products. Students are given a problem brief at the beginning of the design

studio, which they investigate throughout the design studio sequence. The beginning design studio looks at simple problems. Subsequent design studios increase the complexity of the problem being solved.

During the studio work, students understand the design process and apply it to a given problem. They consider business imperatives, technological possibilities, cultural and behavioral factors during the application of design process. In upper level design studios, students think about how the product interacts with its user and how the product exists in an ecosystem by building experiences and services around the product. Faculty members facilitate the entire process of discovery through various methods including lectures, laboratory practice, assigned reading, homework assignments etc.





The final year major project is the most important feature of this program. This project is usually done in co-operation with a company or organization that provides a real life task and setting.

The final year project is executed through the Innovation Factory at ADYPU. It is a complete innovative product development process, starting with a strategic product plan for the company, resulting in a design assignment. The design assignment concludes with materializing a prototype of the designed product and a plan for market introduction. The project is intended to promote the inevitable coherence of different disciplines in product development. By the end of the project the student will have learned to turn the

interests and goals of the company, and the interests of society and future users, into a materialized form of a product, and gained insight into the use of methods and techniques for product innovation and product development. The student would have learned to integrate all their existing knowledge and skills necessary for the project at hand, to see when new knowledge and skills are needed and to integrate the new knowledge and skills in the project and above all would have learned to manage a complex product development project.

AT THE END OF THE PROGRAM, A STUDENT WOULD HAVE ACQUIRED THE FOLLOWING CAPABILITIES:



Would be capable of developing innovative products and product-service combinations to satisfy the needs of the consumer, based on finding a balance between the interests of the designer, the user, industry and society with due regard to international ethical issues.



Would have a thorough knowledge and understanding of, and be proficient in, the execution of the total product design process with an emphasis on conceptualization and would be able to perform and manage this process independently or as a member or the leader of a team, often in an international setting.



Would have a thorough knowledge of the human, aesthetic, technical and environmental issues involved and be acquainted with organizational and economic aspects of products.



Would have a thorough knowledge of the human, aesthetic, technical and environmental issues involved and be acquainted with organizational and economic aspects of products.



Would be capable of an analytical approach to work based on broad and deep scientific knowledge.



Would have the qualities needed in occupations that require sound judgment, personal responsibility and initiative in complex and unpredictable professional environments.



Would be able to assume leading roles, including management, in companies and research organizations, and to contribute to innovation.



Would be able to work in an international environment by virtue of social and cultural sensitivity and language and communication proficiency, some of which will have been acquired in team work.



Would be aware of any ethical, social, environmental, aesthetic and economic implications of his or her work and will act accordingly.



Would be aware of the need to keep their knowledge and skills updated.



CAREERS

As an Industrial Designer you will bring new products and services to life. You will be the one who drives innovation in the organization you choose to work with and make strategic decisions for the company. You will be someone who is attuned to the latest trends, and forecasts on consumer behavior and hence would be responsible for product positioning and decisions to introduce new products. You would be an entrepreneur or an 'intrapreneur' driving the growth for your own company or the company with which you work.

The program effectively develops expertise in diverse areas associated with new product development

which results in the student developing multiple competencies to deal with current or future careers in technical fields.

Every company today needs to innovate, to introduce new products to remain current and competitive. Innovation and new product development is key to their survival and growth. As such all of them need specialized expertise in the areas of new product development. You can find a place in any company or organization that is in the business of developing, marketing or manufacturing products. The company could be a business-to-business (B2B enterprise or business to consumer (B2C) enterprise.

You would be able to find employment in any company ranging from an engineering company to companies engaged in fast moving consumer goods and white goods company or a manufacturing organization.



We give you the opportunity to choose a path breaking career



We will open doors to countless new experiences



We will encourage you to learn, grow and challenge the given



We will prepare you to be 100% job ready



We will help you to make a living, doing what you love to do.

One of the new areas which offers a lucrative career opportunity is Engineering Services Outsourcing. Over the past few years, India has emerged as a major hub for Engineering Outsourcing Services. An increasing number of companies worldwide are looking at Engineering Service Outsourcing (ESO) options to cope up with the changing market demands comprising faster time-to-market for products, lower design engineering costs, higher product quality. According to 'Globalisation of Engineering Services', a report by Nasscom (National Association of Software and Services Companies) and the US-based firm Booz Allen Hamilton, the aggregate revenue of engineering services outsourced worldwide is likely to skyrocket from \$15 billion (Rs.78,000 crore) to an estimated \$200 billion (Rs.1040,000 crore) by 2020. This boom is expected to benefit Indian engineering firms in a big way. India is home to engineering development centers of many global corporations. You name any global major and they have an engineering development centre based in India. Similarly many software powerhouses have branched into this area thus making the sector welcoming with attractive salaries.

After the completion of the course you will not only have a job, but a career, a career where you could grow from being an Industrial Designer, to a project manager, to a division head and even become the CEO of a company.