

**CHANDIGARH UNIVERSITY,
GHARUAN**

DEPARTMENT OF DESIGN



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Chandigarh University
Gharuan, Mohali-140413

Branch: B. Des. (Industrial Design)

Duration of Course: 4 years

Program Outcomes (PO)

Upon successful completion of the Bachelor of Design degree, graduates will be able to:

- a) Apply thorough knowledge of Design fundamentals and the principles which underpin them so as to operate effectively with comprehensive and well-founded skills.
- b) Demonstrate skills and knowledge of the practices, languages, forms, materials and technologies in their relevant discipline.
- c) Research, develop and evaluate design concepts and processes by thinking creatively, critically and reflectively.
- d) Apply skills and knowledge to the creation, visualization and production of design projects.
- e) Work independently and collaboratively on design projects and respond to project demands
- f) Interpret, communicate and present ideas, problems and arguments in modes suited to a range of audiences.
- g) Recognize and reflect on social, cultural technological, environmental and ethical issues of creative practice and design considering local and international perspectives
- h) Communicate and collaborate effectively as a team member or leader, with other team members, clients, employers, and other graphic design service practitioners through the application of principles of human relations and organizational behavior
- i) Create plans for lifelong learning, professional development, and the maintenance of technological currency
- j) Evaluate information and content through the use of advanced research techniques in all aspects of design exploration, development, and execution
- k) Apply financial, entrepreneurial and business management principles and practices in the development and operation of design services and projects
- l) Create Product and Industrial design through a knowledge of structures, materials, construction and service systems, design a portfolio of creative visual, written, and interactive elements.



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Program Educational Objectives (PEO)

- PEO1.** To adhere design students with problem solving ideas.
- PEO2.** To make students more passionate about design.
- PEO3.** Exposure to international level of teaching and active participation in design related events.
- PEO4.** To provide detailed knowledge of product life cycle management and understanding of form and function.
- PEO5.** To give hand on opportunity by providing maximum practical exposure through design studios and workshops.
- PEO6.** To prepare design students to be independent design thinker, innovator, entrepreneurs, design consultants, design managers and many more



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Course Outcomes (B. Design)

Semester- 1ST

BDP-101

Fundamentals of Design-I Course Outcomes (CO):

L	T	P	C
0	0	6	3

- CO:1.** The Students will be able to learn the basics of design elements.
- CO:2.** The Students will be able to create visualizations on a blank format.
- CO:3.** The Students will be able to learn the importance of a dot, a line, colour, texture, pattern etc.

BDP-102:

Materials for Industrial Design –I Course Outcomes (CO):

L	T	P	C
0	0	6	3

- CO:1.** The student will be able to understand the properties of materials.
- CO:2.** The student will be able to understand the addition and removal of the materials.
- CO:1.** The student will be able to learn how to evolve new forms using the properties.

BDP-103:

Design Prospective of Geometry-I Course Outcomes (CO):

L	T	P	C
0	0	4	2

- CO:1.** The student will be to understand the basics of engineering drawing and use of scales.
- CO:2.** The student will be able to learn about the projection of various planes and terms related to engineering drawing.

BDP-105:

Design Prospective of Colour Course Outcomes (CO):

L	T	P	C
0	0	6	3

- CO:1.** This subject exposes the student to the basic

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characteristics of colour, and results obtained by its combinations.

CO:2. The Subject emphasis is not on the psychological impact of colour, but learning the basic theory, through practical.

BDP-107: Sketching-I

Course Outcomes (CO):

CO:1. The student will be able to learn how drawing is all about coordination of hand, eye and mind.

CO:2. The student will be able to learn how to gain control over hand movement to achieve the desired result.

CO:3. The student will be able to learn and draw Nature drawing, Human drawing and object drawing.

L	T	P	C
0	0	6	3

Semester 2nd

BDP-151: Materials for Industrial Design –II

Course Outcomes (CO):

CO:1. To familiarize the students with various types of wood and thermocol.

CO:2. To familiarize the students with Sun Board/Foam Board and Acrylic.

CO:3. To familiarize the students with PUF and create models with the help of these materials.

L	T	P	C
0	0	4	2

BDP-152: Fundamental of Design-II

Course Outcomes (CO):

CO:1. Student will be able to understand the basics of Gestalt Law

CO:2. Student will be able to the use of basic principles of design like balance, harmony in the nature.

L	T	P	C
0	0	4	2

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CO:3. Student will be able to learn Aesthetics given as part of observance in nature.

**BDP-153: Introduction to Photography
Course Outcomes (CO):**

CO:1. It is especially important in the field of design, because they both deal with visual medium. Moreover, it is a crucial tool for archival purpose also. In this module the student learns the basics of photography in two broad categories like Technical and Aesthetic Aspects

L	T	P	C
0	0	6	3

CO:2. Student will be able to understand process of image formation, important terminologies.

CO:3. Student will be able to understand the Use of camera as a medium of communication, composition of a frame, rule of thirds, application of visual principles

**BDP-156: Design prospective of Geometry-II
Course Outcomes (CO):**

CO:1. Student will be able to understand the three axes, Basic solids : cube, cone, pyramid, cylinder, prism,

L	T	P	C
0	0	4	2

CO:2. Student will be able to understand, Additive and subtractive character of solids, Development of surface

CO:3. Student will be able to understand the Frustum of cone and pyramid, Basics of CAD.

**BDP-158: Visualization Techniques
Course Outcomes (CO):**

L	T	P	C
0	0	6	3

CO:1. This course enables the student on various aspects visual techniques that are observed in the nature and then implemented to the products.

CO:2. Student will be able to create new arrangements and use of elements in the design process.


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BDP-159: Sketching –II
Course Outcomes (CO):

L	T	P	C
0	0	6	3

- CO:1.** It will enable to understand the various aspects of design drawing, product construction drawing & rendering techniques in digital and non-digital format.
- CO:2.** This course enables students to understand the various aspects of compositing and expressing different forms of a product like Nature Drawing, Human and Object Drawing

Semester 3rd

BDP-201: Product Sketching and Rendering –I
Course Outcomes (CO):

L	T	P	C
0	0	6	3

- CO:1.** It will enable to understand the knowledge of imaginary cubes and selection of perspective for right views.
- CO:2.** This course enables students to familiar with Proportion and framing of the product.
- CO:3.** This course will enables the students about surfaces and render techniques

BDP-202: Form Analysis and Generation-I
Course Outcomes (CO):

L	T	P	C
0	0	6	3

- CO:1.** It will enable to understand the various aspects of Basics of 2 dimensional form:
- CO:2.** This course enables students to understand the various aspects of curvature and radii treatment in the 2D shapes.
- CO:3.** This course will enable to understand the treatments of 3D shapes preferably using cubes.

BDP-203: Advanced Photography
Course Outcomes (CO):

- CO:1.** Students will be able to develop ideas and choose approaches to generate proposal for an individual photography-based portfolio, which

L	T	P	C
0	0	4	2

they will create.

- CO:2.** Students will be able to work collaboratively in a group to produce photographs.
- CO:3.** Students will be able to gain a greater understanding of both the technical and conceptual aspects of manipulating and editing images in Photoshop, and will create a portfolio of photographs by the end of the semester.

BDP-204: Model making

Course Outcomes (CO):

- CO:1.** It will enable to Prepare the models using wood or boards

L	T	P	C
0	0	6	3

- CO:2.** This course enables students to understand the various aspects of machining processes and their uses with different materials.
- CO:3.** This course will enable the students to imitate the actual product in 1:1 scale with proper details to better understand them.
- CO:4.** The student will be able to write a set of effective and easy to understand technical description, instructions and convey the same using global information technology
- CO:5.** To make the student will be able to capable of creating official content digitally for further communication in the corporate environment.

BDP-205: Ergonomics

Course Outcomes (CO):

- CO:1.** It will enable to understand the various aspects of Body dimensions and its application in design

L	T	P	C
0	0	6	3



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Semester 4rd

BDP-251: Product Sketching and Rendering –II

Course Outcomes (CO):

CO:1. It will enable to draw the Free-hand drawing, materials representation and Sheet layouts.

L	T	P	C
0	0	6	3

CO:2. This course enables students to inculcate in Representation techniques focusing on rhythm, harmony and ideograms.

BDP-252: Introduction to Digital Sculpting

Course Outcomes (CO):

CO:1. It will enable to understand the various aspects of CAD software in the design industry.

L	T	P	C
0	0	6	3

CO:2. This course enables students to understand the various commands used in Rhino 3D to create 3D objects.

CO:3. This course will focuses on creating advanced shapes.

BDP-253: Form Analysis and Generation-II

Course Outcomes (CO):

CO:1. It will enable to understand the Expressions in Forms of design

L	T	P	C
0	0	6	3

CO:2. This course enables students to understand the various aspects of proportion, colour, texture.

CO:3. This course will focuses the students about generating new forms looking at the inspirations.

BDP-254: Materials and Processes

Course Outcomes (CO):

CO:1. It will enable to understand the various Properties and usage of thermoplastics.

L	T	P	C
0	0	6	3

CO:2. This course enables students to understand the


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various processes and assembly techniques for Ferrous and non ferrous metals.

CO:3. This course will enable the students about Properties and use of rubber.

BDP-255: Design Project –I (System and Spatial Design)

Course Outcomes (CO):

CO:1. Student will be able to apply the principles of Ergonomics holistically to a product or a product system.

L	T	P	C
0	0	6	3



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