

Gyanmanjari College of Computer Application
Semester-3 (BCA)

Subject: Innovative Solutions I - BCAXX13208

Type of course: Skill Enhancement Course

Prerequisite: Problem Solving mind-set, Enthusiasm of learning new things, Reevaluate

Rationale:

This course is meant for beginners. The course is designed to develop Innovative Thinking understanding and mind-set for the 3rd semester BCA students.

Teaching and Examination Scheme:

Teachi	ng Sche	eme	Credits	Examination Marks				
CI	T	P	C	SEE	CCE		Total Marks	
					LWA	V	ALA	
0	0	4	2	50	20	10	20	100

Legends: CI-Class Room Instructions; T — Tutorial; P — Practical; C — Credit; SEE — Semester End Evaluation; MSE— Mid Semester Examination; LWA — Lab Work Assessment; V — Viva voce; CCE— Continuous and Comprehensive Evaluation; ALA— Active Learning Activities.

Course Content:

This Course is designed to give very basic understanding of the finding Innovative Solutions of Current Problems. In IS 1, student will select very basic and small, individual or team project. This project would be from very general topic/domain like designing something for yourself/parents/Teacher/Friends. This kind of basic project in 3rd semester would help in understanding of finding Innovative Solutions easily when much technicality is not involve. In this module, student will use whole Innovative Thinking process. below mentioned general guideline document to complete their projects but here the learning objective or focus would be more on Observation or Empathy process. So students need to give more time to these phases and then reach up to the rough prototype phase. The content is divided into week-wise activities as shown below to better understand the course and to give enough time to all the learning aspects and students need to follow the same but depending upon the type and nature of projects, students and guide may allocate more/less time to the activities.



	N	Iodule 1 (IS 1): Finding Innovative Solution	IS
Generalize	Week	Description	Document Submission
	1	Overview, objective and goal of this course What is Innovative Solution? - Its importance, socio-economical relevance Systematic problem identification Log book	Individual logbook is required
Innovative Thinking	2	Domain Selection (general topic/products in 3rd semester) Team Building Exercise odocumentation strategy – introduction, importance, preparation	Log book Project Definition Team Formation
	3	Learning tools Design as listening tool for mapping users' unmet needs	Log book Brief Analysis of Project
	4		Log book AEIOU diagram with Description
Empathization Phase	5	Key pain and pleasure points Understanding of User Contexts •	Log book Monthly Assessment Card- 1
	6	Log book exercise Analysis of Data - Mind Mapping Empathy Map •	Log book Mind Mapping Canvas Empathy Canvas
Define Phase	7	Group wise presentation followed by Discussion Define Problem statement (format is given in reference PPT	Log book Presentation
Ideation Phase	8	Preparation of Ideation canvas Brainstorming (What, Why, How, When, For Whom) Situation/Context/Location Props/non-living things/tools/equipment Opportunity mapping	
		Prioritizing and finalizing Idea (After • group discussion and consulting with • faculty guide, student teams need to select their final problem & idea for further development)	
Product Development	10	Preparation of Product Development • Canvas (PDC)	Log book Product · Development

Phase	 Product Experience Product Functions Product Features Components 	Canvas
	 Customer/User Revalidation (Rejection Redesign/ Retain) Refinement 	 Log book Product Development Canvas Customer/User Revalidation (Reject/ Redesign/ Retain) Refinement
Proof of Concept	• Rough Prototype 12	 Log book Monthly Assessment Card- 3
Final Report	 Continuous Assessment Card certificate generation Final Report 	 Continuous Assessment Card (ALL Log books) certificate generation Final Report

Continuous Assessment:

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Sr. No.	Active Learning Activities	Marks
1	Action Sphere: Students have to prepare AEIOU diagram for their respective project definition and they have to upload it on GMIU web portal.	05
2	MindMap Magic: Students are expected to create a Mind Map diagram for their projects and then upload it to the GMIU web portal.	`05
3	Innovate Grid: Students are required to complete and submit a Product Development Canvas for their projects on the GMIU web portal.	05
4	Innovation Odyssey: Students are required to prepare a final report for their respective projects and submit it on the GMIU web portal.	05
	Total	20

Course Outcome:

After	learning the course the students should be able to:	
CO1	think about innovative Solutions of the different problem statements.	



CO2	Prepare AEIOU and Mind mapping diagrams.
CO3	Prepare Empathy and Ideation canvas.
CO4	Create product development canvas.
COS	Make a final summary documentation of project.

Instructional Method:

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Sr. No.	Particular	Sub-Head Weightage
1	 Understanding of Design Thinking methodology/ need Importance and understanding of Innovative Thinking, entrepreneurship, societal solutions with various learning tools 	10
2	Observation towards Empathy Observation and outcome Mind Mapping - Summarization and data analysis Observation Technique (AEIOU Framework)	10
3	log book (Individual completed log book, duly signed by guide regularly) Continuous Assessment Card for Internal Evaluation (Complete and duly signed by guide regularly)	10
4	Understanding of Canvases/Framework AEIOU, Mind Mapping Empathy mapping Ideation Canvas Product development Canvas	10
5	Report: Compilation of work report (process report), Activity Completion Certificate	10
		50



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