

Gyanmanjari College of Computer Application Semester-4 (BCA)

Subject: Innovative Solutions II - BCAXX14211

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 4rd semester BCA students.

Teaching and Examination Scheme:

Teaching Scheme			Credits		Examination	Marks		
CI		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 2, student will build the solution of the problem thy have identified and analyzed in IS I subject of 3rd semester. They will have to develop the software (website/ mobile app. / IOT / ML etc...) regarding their definition.

Module 2 (IS II): Implementing Innovative Solutions				
Generalize	Week	Description	Document Submission	
	1	• Prepare road map for the 4 th semester Execution	• Logbook	
Validate the solution	2, 3, 4	• Detailed Design (including all aspects of products, process, resources, standards etc.)		
	5, 6, 7	• Learning tools and technology for the implementation of the software product	• Log book	

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		 Preparing prototype of software 	
Build and testing	89	 Implementation of the software Construction of code Testing software 	 Log book Working environment details (software, Hardware, front end, back end etc)
the Product	12, 13	 Customer Revalidation Modification 	• Log book
	14	• Final Working Product Preparation	 Log book Final project
Final Report	15	 Certificate generation Final Report 	Log bookPresentation

Continuous Assessment:

Sr. No.	Active Learning Activities	Marks
1	Prototyping: Students have to prepare prototype of respective project definition and they have to upload it on GMIU web portal.	
2	Innovation Odyssey: Students are required to prepare a final report for their respective projects and submit it on the GMIU web portal.	
	Total	20

Course Outcome:

	learning the course, the students should be able to:
	Develop a structured execution plan for software product development, incorporating phases such as design, implementation, testing, and deployment. Analyza and apply detailed software design principles, considering product requirements, process
CO2	workflows resources and industry standards.
CO3	Evaluate and integrate appropriate tools, frameworks, and technologies for software development and implementation.
CO4	Construct and implement software code following best practices in programming, security, and efficiency
CO5	Prepare a comprehensive project report documenting all phases, methodologies, tools, challenges, and final outcomes of the software product.



Instructional Method:

Sr. No.	Particular	Sub-Head Weightage
	 Project Planning & Design Clarity and feasibility of the roadmap Completeness of the detailed design (product, process, resources, standards) Proper selection of tools and technologies 	10
2	 Implementation & Coding Code efficiency, maintainability, and best practices Proper integration of features and functionalities Adherence to security and performance standards 	10
3	Testing & Validation > Quality and effectiveness of testing (unit, integration, and user acceptance) > Bug identification and resolution strategies > Feedback incorporation	10
4	Final Product & Documentation > Functionality and usability of the final working product > Completeness and professionalism of the final report	10.
	 Presentation & Teamwork Clarity and effectiveness of the final project presentation Team collaboration and role distribution Ability to answer queries and justify design choices 	10
		50

