



Gyanmanjari
Innovative University

Syllabus
Gyanmanjari Institute of Technology
Semester-1 (B.Tech)

Subject: Digital Productivity and AI Tools Lab– BET2CE11203

Type of course: Skill Enhancement Courses (SEC)

Prerequisite: Basic computer literacy, logical thinking, and willingness to explore digital tools are required. Students should be comfortable using computers, internet-based applications, documents, spreadsheets, presentation tools, and basic online platforms. No prior knowledge of Artificial Intelligence, Machine Learning, coding, or automation tools is required.

Rationale:

This course introduces students to the practical use of Artificial Intelligence (AI) tools and applications for academic, professional, creative, analytical, and automation-based tasks. It helps learners understand the fundamentals of AI tools, Generative AI, prompt writing, AI-assisted content creation, data analysis, visualization, creative design, multimedia generation, and workflow automation. Logical thinking supports students in selecting suitable AI tools, writing effective prompts, evaluating AI-generated outputs, and designing simple automation workflows. Familiarity with digital tools helps learners quickly adopt platforms such as ChatGPT, Gemini, Microsoft Copilot, Canva AI, Perplexity, spreadsheet-based AI tools, presentation tools, and no-code automation tools. The course provides practical exposure through hands-on activities, real-world tasks, and mini projects, preparing students to use AI tools responsibly, creatively, and effectively for productivity enhancement and problem-solving.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks		Total Marks
CI	T	P	C	SEE	CCE	
0	0	4	2	50	50	100

Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; SEE - Semester End Evaluation; CCE-Continuous and Comprehensive Evaluation.



Course Content:

Sr. No	Course Content	Hrs.	% Weightage
1	Foundations of Artificial Intelligence and AI Tools <u>Theory Topics:</u> This module introduces students to Artificial Intelligence (AI), AI tools, and their applications in education, business, automation, digital products, and engineering fields. It covers the basic concepts of AI, Machine Learning, Deep Learning, Generative AI, and the difference between traditional software and AI-powered systems. Students will learn how AI tools can be used for content generation, data analysis, image creation, chatbot development, automation, prediction, and decision-making. The module also includes basic understanding of data, algorithms, models, prompts, outputs, and feedback. It introduces responsible use of AI, including accuracy, bias, privacy, copyright awareness, and human supervision. Students will also get an overview of popular AI tools such as ChatGPT, Gemini, Microsoft Copilot, Canva AI, Perplexity, presentation tools, and no-code AI automation tools, along with basic prompt writing and output evaluation. <u>Practical:</u> 1. Set up accounts and explore the basic workspace of AI tools such as ChatGPT, Gemini, Microsoft Copilot, Canva AI, Perplexity, and presentation AI tools. 2. Create effective prompts for basic academic and professional tasks such as writing notices, emails, summaries, reports, and short content. 3. Perform prompt refinement by improving instructions, adding context, defining output format, and comparing improved results with initial outputs. 4. Generate AI-assisted content for a given scenario such as student notice, event description, social media caption, or departmental announcement. 5. Use AI tools to summarize long text, extract key points, prepare meeting notes, and convert information into structured format. 6. Compare outputs from two or more AI tools for the same task and evaluate them based on accuracy, clarity, relevance, creativity, and usefulness.	12	20%



	7. Create a simple AI-generated presentation using presentation AI tools by providing topic, slide structure, and design instructions. 8. Design an AI-assisted poster, banner, or social media creative using Canva AI or similar AI-based design tools. 9. Use AI tools for basic data interpretation by uploading or entering sample data and generating insights, tables, and simple analysis. 10. Identify errors, bias, privacy risks, copyright concerns, and limitations in AI-generated outputs. Evaluation Method: <table><tr><th>Sr. No.</th><th>Evaluation Method</th><th>SEE</th><th>CCE</th></tr><tr><td>1</td><td>Smart Prompt Engineering and AI-Assisted Content Creation: Students will create AI-generated academic or professional content by writing effective prompts with context, task, tone, and format, then refine the prompt to improve the final output.</td><td>05</td><td>-</td></tr><tr><td>2</td><td>AI Tool-Based Task Execution and Output Improvement; Students will complete a given task using an AI tool, identify weaknesses in the first output, improve the prompt, and submit a refined, accurate, and usable final result.</td><td>05</td><td>-</td></tr><tr><td>3</td><td>Active Learning Activity (ALA): AI Tool Exploration and Responsible Usage Portfolio: Students will prepare a portfolio by exploring different AI tools and documenting prompts, outputs, improvements, final results, and responsible AI usage practices such as accuracy checking, privacy, bias, copyright, and human supervision.</td><td>-</td><td>10</td></tr><tr><td colspan="2">Total</td><td>10</td><td>10</td></tr></table>	Sr. No.	Evaluation Method	SEE	CCE	1	Smart Prompt Engineering and AI-Assisted Content Creation: Students will create AI-generated academic or professional content by writing effective prompts with context, task, tone, and format, then refine the prompt to improve the final output.	05	-	2	AI Tool-Based Task Execution and Output Improvement; Students will complete a given task using an AI tool, identify weaknesses in the first output, improve the prompt, and submit a refined, accurate, and usable final result.	05	-	3	Active Learning Activity (ALA): AI Tool Exploration and Responsible Usage Portfolio: Students will prepare a portfolio by exploring different AI tools and documenting prompts, outputs, improvements, final results, and responsible AI usage practices such as accuracy checking, privacy, bias, copyright, and human supervision.	-	10	Total		10	10	
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Total		10	10																			



	Examination Style: Smart Prompt Engineering and AI-Assisted Content Creation (05 Marks): - Students will be given an academic or professional scenario such as notice writing, email drafting, report preparation, event description, or presentation content creation. They must write a proper prompt with context, task, tone, and output format, generate the content using an AI tool, refine the prompt, and submit the improved final output with a short explanation. AI Tool-Based Task Execution and Output Improvement (05 Marks) - Students will be given a specific task during the examination, such as preparing a short report, notice, summary, presentation outline, data interpretation, or creative content using an AI tool. They must write a suitable prompt, generate the required output, identify weaknesses in the first result, improve the prompt, and submit the refined final output. This task evaluates the student's ability to use AI tools effectively, improve AI-generated content, and produce accurate, clear, and usable results within the given time. Active Learning Activity (ALA): AI Tool Exploration and Responsible Usage Portfolio (10 Marks): - Students will individually prepare a structured portfolio by exploring AI tools such as ChatGPT, Gemini, Copilot, Canva AI, Perplexity, and presentation AI tools. The portfolio must include the selected task, prompt used, generated output, improved prompt, refined output, and final result. Students should also mention accuracy checking, privacy awareness, bias identification, copyright concerns, and human supervision. The final PDF/slide deck must be uploaded individually on the GMIU Web Portal along with a short learning reflection.		
2	Prompt Engineering and AI-Assisted Content Creation <u>Theory Topics:</u> This module focuses on the effective use of AI tools through structured prompt writing and AI-assisted content generation. Students will learn the fundamentals of prompt engineering, including role-based prompting, task-based prompting, context setting, tone selection, output formatting, and iterative prompt	12	20%



	refinement. The module explains how AI tools can be used for academic and professional content creation such as notices, emails, reports, summaries, presentations, social media content, lesson plans, and idea generation. It also covers techniques for improving AI-generated responses by adding clear instructions, examples, constraints, target audience, length, and format requirements. Students will understand how to evaluate AI outputs based on accuracy, clarity, relevance, completeness, originality, and usefulness. The module also introduces ethical and responsible content creation using AI, including plagiarism awareness, fact-checking, bias identification, privacy protection, copyright concerns, and the need for human review before final use. <u>Practical:</u> 11. Write role-based prompts for different academic and professional tasks such as teacher, student, content writer, report maker, and presentation designer. 12. Create task-based prompts for generating notices, emails, reports, summaries, lesson plans, social media content, and presentation outlines. 13. Apply context setting in prompts by adding background details, target audience, purpose, tone, and expected output format. 14. Perform prompt refinement by improving weak prompts using clear instructions, examples, constraints, word limits, and formatting requirements. 15. Generate AI-assisted academic content such as topic explanation, question bank, assignment instructions, and classroom activity content. 16. Prepare professional communication content using AI tools, including formal emails, circulars, event descriptions, and meeting summaries. 17. Convert unstructured information into structured formats such as tables, bullet points, step-wise plans, checklists, and reports using AI tools. 18. Compare initial AI-generated output with refined output and identify improvements in accuracy, clarity, relevance, completeness, and usefulness. 19. Identify plagiarism risks, factual errors, bias, privacy concerns, and copyright issues in AI-generated content. 20. Prepare a prompt engineering practice sheet containing the task, prompt, AI output, refined prompt, final output, and short reflection.	
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Evaluation Method:			
Sr. No.	Evaluation Method	SEE	CCE
1	Structured Prompt Writing : Students will write a clear and structured prompt for a given scenario by including role, context, task, tone, audience, format, and constraints.	00	10
2	AI-Assisted Content Refinement Demonstration; Students will generate content using an AI tool, identify weaknesses in the first output, refine the prompt, and submit an improved final output with better clarity, accuracy, and professional quality.	05	00
3	Active Learning Activity (ALA): PromptCraft Portfolio: Students will prepare a portfolio by using AI tools for different academic and professional tasks, including prompts, outputs, refined prompts, improved results, reflection, and responsible AI usage practices.	05	00
Total		10	10
Examination Style:			
1. Structured Prompt Writing Task (05 Marks):			
Students will be given a specific scenario during the examination. They must write a clear and structured prompt by including role, context, task, tone, target audience, output format, and constraints. This task evaluates the student's ability to frame effective prompts for generating accurate and useful AI responses.			
2. AI-Assisted Content Refinement Demonstration (05 Marks):			
Students will generate content using an AI tool for a given task and then improve the result through prompt refinement. They must identify weaknesses in the first output, modify the prompt with better instructions, and submit the refined final output. This task evaluates the student's ability to improve AI-generated content for			



	clarity, accuracy, relevance, formatting, and professional quality. 3. Active Learning Activity (ALA) : PromptCraft Portfolio (10 Marks): Students will individually prepare a PromptCraft Portfolio based on different academic and professional tasks such as email writing, notice preparation, report writing, summary generation, presentation outline, social media content, and idea generation. For each task, students must include the selected task, AI tool used, original prompt, generated output, refined prompt, improved output, and short reflection. The portfolio must also include responsible AI usage points such as fact-checking, plagiarism awareness, privacy protection, bias identification, and human review. The final PDF/slide deck must be uploaded individually on the GMIU Web Portal.		
3	AI-Assisted Data Analysis and Visualization <u>Theory Topics:</u> This module focuses on the use of AI tools for data understanding, analysis, visualization, and decision-making. Students will learn the basics of data types, datasets, data cleaning, data interpretation, and the role of AI in converting raw data into meaningful insights. The module covers AI-assisted data analysis using tools such as ChatGPT, Microsoft Copilot, Excel AI features, Google Sheets AI features, Power BI, and other suitable AI-based analytics tools. Students will understand how AI can help in summarizing data, identifying trends, generating tables, creating charts, interpreting results, and preparing decision-support reports. The module also introduces basic concepts of dashboards, key performance indicators, data storytelling, and visual representation of information. Emphasis will be given to accuracy checking, avoiding misleading conclusions, validating AI-generated insights, and presenting data in a clear, ethical, and professional manner. <u>Practical:</u> - Collect or prepare a small dataset related to students, sales, attendance, feedback, placement, marks, inventory, expenses, or any real-world scenario. - Import the selected dataset into Excel, Google Sheets, Power BI, or any suitable AI-supported data analysis tool.	12	20%



	23. Clean the raw dataset by removing duplicate records, correcting spelling mistakes, filling missing values, and arranging columns properly. 24. Convert unstructured or messy data into a structured table format using AI assistance. 25. Use AI tools to identify important columns, data types, and possible errors in the dataset. 26. Generate summary statistics such as total, average, minimum, maximum, percentage, and count from the dataset. 27. Create filtered views based on selected conditions such as department, semester, category, date, performance, or status. 28. Use AI tools to summarize the dataset and extract key observations in simple language. 29. Identify patterns, trends, outliers, and unusual values from the dataset using AI-assisted analysis. 30. Create basic charts such as bar chart, pie chart, column chart, line chart, and area chart to represent data visually. 31. Create a basic dashboard using Excel, Google Sheets, Power BI, or any AI-supported visualization tool. 32. Use AI tools to generate decision-support suggestions based on the analyzed data.		
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Evaluation Method:			
Sr. No.	Evaluation Method	SEE	CCE
1	AI-Assisted Data Cleaning and Visualization: Students will clean and organize a given raw dataset, handle errors and missing values, prepare a structured table, and create suitable charts or summary tables using AI and visualization tools.	05	-
2	Dashboard Interpretation and Decision-Support Demonstration: Students will interpret a given dashboard or dataset, identify trends, patterns, KPIs, and observations, and prepare meaningful decision-support suggestions with logical verification.	05	-
3	Active Learning Activity (ALA): AI Data Insight Portfolio : Students will prepare a portfolio using a small dataset by including data cleaning steps, AI-assisted observations, charts, KPIs, dashboard screenshots, conclusions, recommendations, and decision-support insights.	-	10
Total		10	10
Examination Style:			
1. AI-Assisted Data Cleaning and Visualization (05 Marks): - Students will be given a raw dataset during the examination. They must clean and organize the data by removing errors, arranging columns, handling missing values, and preparing a structured table. They must also create suitable charts or summary tables to represent the data clearly. This task evaluates the student's ability to use AI tools and spreadsheet/visualization tools for basic data preparation and visual representation. 2. Dashboard Interpretation and Decision-Support Demonstration (05 Marks): - Students will analyze a given dashboard, chart, or summarized dataset and identify key trends, patterns, KPIs, and important observations. They must prepare short decision-support suggestions based on the data and verify			



	that the AI-generated insights are logical and accurate. This task evaluates the student's ability to interpret data and present meaningful recommendations for decision-making. 3. Active Learning Activity (ALA): AI Data Insight Portfolio (10 Marks): Students will individually prepare an AI Data Insight Portfolio using a small dataset related to students, sales, attendance, feedback, placement, marks, inventory, or any real-world scenario. The portfolio must include dataset description, data cleaning steps, AI-assisted observations, charts, KPIs, dashboard screenshots, conclusions, and recommendations. Students must also mention how AI tools were used for analysis and decision support. The final PDF/slide deck must be uploaded individually on the GMIU Web Portal.		
4	AI-Assisted Creative Design and Multimedia Communication <u>Theory Topics:</u> This module focuses on the use of AI tools for creative design, visual content generation, presentation development, video support, and multimedia communication. Students will learn how AI tools can support poster design, banner creation, social media creatives, image generation, presentation design, script writing, video idea generation, and branding-related content. The module introduces basic concepts of visual communication, design consistency, audience-based content creation, image prompt writing, layout selection, color and typography awareness, and storytelling through multimedia. Students will explore tools such as Canva AI, Microsoft Designer, Adobe Express AI, image generation tools, presentation AI tools, and video-support AI tools. The module also covers responsible creative AI usage, including copyright awareness, originality, ethical image generation, avoiding misleading visuals, and reviewing AI-generated designs before final use. Emphasis will be given to creating clear, attractive, purposeful, and professionally presentable AI-assisted creative outputs.	12	20%



	<u>Practical:</u> 33. Explore AI-based creative tools such as Canva AI, Microsoft Designer, Adobe Express AI, image generation tools, presentation AI tools, and video-support AI tools. 34. Create AI-assisted posters for academic events, workshops, seminars, competitions, or awareness campaigns. 35. Design social media creatives using AI tools with proper title, subtitle, visuals, layout, and call-to-action. 36. Generate banners, flyers, and digital invitations for college, business, or community-based scenarios. 37. Write image generation prompts by specifying subject, style, background, color tone, aspect ratio, and purpose. 38. Generate AI-based images for selected themes and refine prompts to improve visual quality and relevance. 39. Create a short video concept or reel script using AI tools for promotional, educational, or awareness purposes. 40. Generate captions, taglines, slogans, and short promotional content using AI tools. 41. Apply basic visual communication principles such as color harmony, typography, spacing, alignment, and hierarchy in AI-generated designs. 42. Compare two AI-generated design outputs and identify which one is more suitable based on clarity, creativity, purpose, and audience. 43. Modify AI-generated designs manually to improve readability, layout balance, visual appeal, and professional quality. 44. Check AI-generated creative content for copyright concerns, misleading visuals, inappropriate elements, and originality issues. 45. Prepare a mini creative portfolio containing posters, social media creatives, image prompts, presentation slides, and short content samples.	
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Evaluation Method:

Sr. No.	Evaluation Method	SEE	CCE
1	AI-Assisted Poster and Social Media Creative: Students will create an AI-assisted poster or social media creative for a given scenario using proper title, visuals, layout, colors, typography, and call-to-action.	05	-
2	AI-Assisted Poster and Social Media Creative Task: Students will create prompts for multimedia content, generate AI-based outputs, identify weaknesses, refine the prompt, and submit improved final content with clarity, relevance, originality, and professional quality.	05	-
3	Active Learning Activity (ALA): AI-Assisted Poster and Social Media Creative Students will prepare a creative portfolio using AI tools by including posters, social media creatives, banners, slides, prompts, captions, taglines, improvements, and final design outputs.	-	10
Total		10	10

Examination Style:**1. AI-Assisted Poster and Social Media Creative Task (05 Marks):**

- Students will be given a specific scenario during the examination, such as an academic event, workshop, seminar, awareness campaign, or promotional activity. They must create an AI-assisted poster or social media creative with proper title, subtitle, visuals, layout, color selection, typography, and call-to-action. This task evaluates the student's ability to use AI tools for clear, attractive, and purpose-based visual communication.



	2. Multimedia Content Prompting and Output Refinement (05 Marks): - Students will create prompts for image generation, presentation content, captions, slogans, or short video/reel ideas. They must generate the output using an AI tool, identify weaknesses in the first result, refine the prompt, and submit the improved final output. This task evaluates the student's ability to guide AI tools creatively and improve AI-generated multimedia content for relevance, clarity, originality, and professional quality. 3. AI-Assisted Poster and Social Media Creative (10 Marks): - Students will individually prepare an AI Creative Design Portfolio using AI-based creative tools such as Canva AI, Microsoft Designer, Adobe Express AI, image generation tools, presentation AI tools, or video-support AI tools. The portfolio must include AI-assisted posters, social media creatives, banners, presentation slides, image prompts, taglines, captions, and short creative content samples. Students should also mention the tool used, prompt applied, output generated, improvements made, and final design result. The final PDF/slide deck must be uploaded individually on the GMIU Web Portal.		
5	AI Automation, Workflow Development and Smart Solutions <u>Theory Topics:</u> This module focuses on applying AI tools for automation, workflow development, and real-world problem-solving. Students will learn how AI can be integrated with digital tools to automate repetitive tasks, improve productivity, support decision-making, and create smart solutions for academic, business, and professional needs. The module covers basic concepts of AI automation, no-code and low-code AI tools, chatbot-based workflows, document automation, email automation, data-to-report generation, and AI-assisted project development. Students will understand how to identify suitable problems for AI automation, select appropriate tools, design workflow steps, define inputs and outputs, and evaluate the effectiveness of AI-based solutions. The module also introduces responsible implementation of AI systems, including privacy, reliability, human supervision, error handling, ethical use, and limitations of automation. Emphasis will be given to preparing practical AI-based mini projects that demonstrate creativity, usefulness, clarity, and real-world applicability.	12	20%



	<u>Practical:</u> 46. Identify a real-world repetitive task from academic, business, office, or personal productivity areas that can be improved using AI automation. 47. Explore no-code and low-code AI automation tools such as Zapier, Make, n8n, Power Automate, Google Workspace AI tools, or similar platforms. 48. Design a simple workflow diagram showing input, process, AI action, output, and final user benefit. 49. Create an AI-assisted email automation workflow for drafting, summarizing, or categorizing emails based on given conditions. 50. Develop a document automation task where AI generates notices, reports, certificates, or structured documents from given input data. 51. Create a chatbot-based workflow for student support, FAQ answering, event information, admission guidance, or basic customer assistance. 52. Build a data-to-report generation workflow where raw data is converted into summary, insights, and recommendations using AI tools. 53. Automate content creation for a selected scenario such as event promotion, weekly report, meeting summary, or social media planning. 54. Integrate AI tools with Google Sheets, Excel, Docs, Forms, or other digital tools for improving productivity and reducing manual work. 55. Prepare a basic AI-powered task planner or reminder-support system using suitable AI or automation tools. 56. Create a workflow that takes form responses and generates a structured summary or action list using AI assistance. 57. Test the developed automation workflow using sample inputs and verify whether the output is accurate, complete, and useful. 58. Identify possible errors, privacy risks, incorrect outputs, and limitations in the AI automation workflow. 59. Improve the automation workflow by refining prompts, modifying steps, adding conditions, and improving output format. 60. Prepare documentation of the AI automation workflow including problem statement, tool used, workflow steps, input-output details, screenshots, testing result, and limitations. 61. Present a mini AI-based automation project that demonstrates real-world usefulness, responsible AI usage, and practical implementation.		
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Evaluation Method:			
Sr. No.	Evaluation Method	SEE	CCE
1	AI Workflow Documentation and Process Structuring: Students will prepare a clear workflow structure for a given automation scenario by showing input, process, AI action, condition, output, and expected result.	05	-
2	AI Automation Tool Demonstration and Output Validation: Students will demonstrate a simple AI automation workflow, test it with sample input, verify the output, identify errors or limitations, and suggest suitable improvements.	05	-
3	Active Learning Activity (ALA): AI Automation Mini Project Portfolio: Students will prepare a mini project portfolio on a real-world repetitive task by including the problem statement, selected automation tool, workflow diagram, input-output details, steps, screenshots, testing results, limitations, and learning reflection.	-	10
Total		10	10
Examination Style:			
1. AI Workflow Documentation and Process Structuring (05 Marks): - Students will be given a practical automation scenario during the examination. They must prepare a clear workflow structure showing input, process, AI action, condition, output, and expected result. This task evaluates the student's ability to understand automation requirements and design a logical AI-based workflow before implementation. 2. AI Automation Tool Demonstration and Output Validation (05 Marks): - Students will demonstrate a simple AI automation workflow using any suitable tool. They must test the			



	workflow with sample input, verify the generated output, identify errors or limitations, and suggest improvements. This task evaluates the student's ability to implement, test, and validate AI-based automation for real-world use. 3. Active Learning Activity (ALA): AI Automation Mini Project Portfolio (10 Marks): Students will individually prepare an AI Automation Mini Project Portfolio based on a real-world repetitive task from academic, office, business, or productivity areas. The portfolio must include the problem statement, selected AI/automation tool, workflow diagram, input-output details, automation steps, screenshots, testing results, limitations, and final learning reflection. Students may use tools such as n8n, Zapier, Make, Power Automate, Google Workspace tools, or any suitable AI-supported automation platform. The final PDF/slide deck must be uploaded individually on the GMIU Web Portal.		
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Suggested Specification:

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage %	N/A	N/A	N/A	N/A	N/A	N/A

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Course Outcome:

After learning the course the students should be able to:	
CO1	Understand AI fundamentals, Generative AI, prompt basics, and responsible AI usage.
CO2	Apply prompt engineering to create and improve AI-assisted content.
CO3	Use AI tools for data analysis, visualization, dashboards, and reporting.
CO4	Create AI-assisted posters, presentations, images, and multimedia content.
CO5	Develop AI-based automation workflows and mini-projects using no-code/low-code tools.



Instructional Method:

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory.

The internal evaluation will be done on the basis of Active Learning Assignment.

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

Reference Books:

- [1] Ajay Kumar, Sangeeta Rani, Krishna Dev Kumar and Manish Jain, *Handbook of AI in Engineering Applications: Tools, Techniques, and Algorithms*, CRC Press, First Edition, 2026.
- [2] Stuart Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach*, Pearson Education, 4th Edition, 2020.
- [3] Aurélien Géron, *Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow*, O'Reilly Media, 3rd Edition, 2022.
- [4] Tom Taulli, *Generative AI: How ChatGPT and Other AI Tools Will REvaluationize Business*, Apress, 2023.
- [5] Bernard Marr, *Generative AI in Practice: 100+ Amazing Ways Generative Artificial Intelligence Is Changing Business and Society*, Wiley, 2024.



Suggested Assessment Guidelines:**Module 1: Foundations of Artificial Intelligence and AI Tools**

Criteria	Description	Marks
AI Tool Exploration and Workspace Setup	Ability to explore and use basic workspaces of AI tools such as ChatGPT, Gemini, Copilot, Canva AI, Perplexity, and presentation AI tools.	5
Basic Prompt Writing and Output Generation	Writing simple and effective prompts for academic and professional tasks such as notices, emails, summaries, reports, and short content.	5
AI Output Comparison and Improvement	Comparing outputs from two or more AI tools and improving results by refining prompts, adding context, tone, and output format.	5
Responsible AI Usage and Viva-Voce	Ability to explain AI tool usage, accuracy checking, bias, privacy, copyright concerns, limitations, and the need for human supervision.	5
Total		20

Module 2: Prompt Engineering and AI-Assisted Content Creation

Criteria	Description	Marks
Structured Prompt Writing	Writing clear prompts by including role, context, task, tone, target audience, output format, examples, and constraints.	5
AI-Assisted Academic and Professional Content Creation	Generating content such as notices, emails, reports, summaries, lesson plans, social media content, and presentation outlines using AI tools.	5
Prompt Refinement and Output Improvement	Identifying weaknesses in the first AI output and improving the prompt to produce clearer, more accurate, relevant, and professional content.	5
Content Evaluation and Responsible Use	Ability to evaluate AI-generated content for accuracy, clarity, originality, plagiarism risk, factual errors, privacy, bias, and copyright issues.	5
Total		20



Module 3: AI-Assisted Data Analysis and Visualization

Criteria	Description	Marks
Dataset Preparation and Cleaning	Collecting or preparing a small dataset and cleaning it by removing duplicates, correcting errors, filling missing values, and arranging columns properly.	5
AI-Assisted Data Analysis	Using AI tools, Excel, Google Sheets, Power BI, or similar tools to identify data types, generate summary statistics, and extract key observations.	5
Data Visualization and Dashboard Creation	Creating suitable charts, summary tables, filtered views, KPIs, and basic dashboards to represent data clearly and professionally.	5
Insight Interpretation and Viva-Voce	Interpreting trends, patterns, outliers, and dashboard insights, validating AI-generated conclusions, and suggesting logical decision-support recommendations.	5
Total		20

Module 4: AI-Assisted Creative Design and Multimedia Communication

Criteria	Description	Marks
JSP Scripting Elements	Program to Demonstrate JSP Scripting Elements: Expressions, Scriptlets, and Declarations.	5
Form Handling & Session Tracking	Program to Implement Form Handling and Session Tracking using JSP.	5
JSP-Database Connectivity	Program to Establish Database Connectivity	5
Conceptual Explanation & Viva-Voce	Ability to explain the JSP life cycle, implicit objects, and the logic/output of each practical performed.	5
Total		20

Module 5: AI Automation, Workflow Development and Smart Solutions

Criteria	Description	Marks
AI Creative Tool Usage	Exploring and using AI-based creative tools such as Canva AI, Microsoft Designer, presentation AI tools, and video-support AI tools.	5
Poster and Social Media Creative Development	Designing AI-assisted posters, banners, flyers, invitations.	5
Multimedia Prompting and Output Refinement	Writing prompts for image generation, captions, slogans, presentation content	5
Design Review and Responsible Creative Use	Ability to review AI-generated designs for clarity, readability, originality, copyright concerns, misleading.	5
Total		20

