Course Name: Graduation Project (Phase 1) **Course Code:** ITEC425

General Information						
Course Code	**ITEC-425**	**Level/Year**	7^{th} / 4^{th}	**Required (R) / Selected Elective (SE)**		**R**
Credit Hours	**Theory**	**3**	**Lab**	**0**	**Total**	**3**
Prerequisites	**ITEC322 & ITEC323**	**Course Coordinator**		Dr. Manju Sharma		
Corequisites	**Nil**	**Track Leader**		Dr. Jayabrabu		

Course Description

This course marks the initial phase of the capstone project for students in the Bachelor of Information Technology (BIT) program. Students will begin by identifying a significant problem or challenge within the field of information technology and developing a comprehensive project proposal. The course emphasizes research, planning, and the application of theoretical knowledge to practical problems. Key activities include conducting a literature review, defining project objectives, and outlining the methodology and resources required. Students will work closely with faculty advisors to refine their project ideas and ensure feasibility. By the end of this course, students will have a well-defined project plan that sets the stage for successful implementation in the subsequent phase.

Course Objectives : On completion of the course, the student will be able to:

- Develop a comprehensive project proposal, including objectives, scope, methodology, and expected outcomes.
- Conduct a thorough literature review to identify existing research and technologies relevant to the project.
- Evaluate the technical feasibility of the proposed project, including resource requirements and potential challenges.
- Create a detailed project plan, including timelines, milestones, and resource allocation.
- Demonstrate effective problem-solving skills by identifying potential issues and developing strategies to address them.
- Work effectively in a team environment, demonstrating strong collaboration and communication skills.
- Present the project proposal and initial findings clearly and professionally to a diverse audience, including peers, faculty, and industry professionals.
- Demonstrate critical thinking and innovative approaches to solving complex IT problems.

Course Contents

List of Topics	Weeks
UNIT 1: Introduction	1, 2, 3

UNIT 2: Literature Review, Project Proposal, and Methodology	4, 5, 6
UNIT 3: Project Proposal, Technical Feasibility Analysis, and Methodology	7, 8, 9
UNIT 4: Project Planning, and Ethical Considerations	10, 11, 12
UNIT 5: Initial Findings, Conclusion, and References	13, 14, 15

Textbook

- Projects in Computing and Information Systems: A Student's Guide, 3rd Edition, By Christian Dawson, Pearson, 2015, ISBN 10: 1292073462, ISBN 13: 9781292073460.
- How to do the Final Year Projects, 2nd Edition, By Hossein Hassani, Bookboon, 2015, ISBN 10: 8740302776, ISBN 13: 9788740302776.

Reference Materials

- Doing Your Research Project: A Guide for First-Time Researchers, 7th Edition, By Stephen Waters, Judith Margaret Bell, 2018, McGraw-Hill Education, ISBN 10: 033524338X, ISBN 13: 9780335243389.
- Writing your thesis - A Practical Guide for Students, 2nd Edition, By Librero Felix R., 2012, Philippines Open University, ISBN 10: 9717672105, ISBN 13: 9789717672106.

Course Learning Outcomes

CLO	Description	Mapped PI
CLO#01	**Develop** a comprehensive project proposal, including objectives, scope, methodology, and expected outcomes.	PI 1.1
CLO#02	**Conduct** a thorough literature review to identify existing research and technologies relevant to the project.	PI 1.3
CLO#03	**Apply** appropriate research methodologies to gather and analyze data for the project.	PI 2.2
CLO#04	**Evaluate** the technical feasibility of the proposed project, including resource requirements and potential challenges.	PI 1.2
CLO#05	**Create** a detailed project plan, including timelines, milestones, and resource allocation.	PI 3.1
CLO#06	**Demonstrate** effective problem-solving skills by identifying potential issues, security requirements, threats, and vulnerabilities as well as developing strategies to address them.	PI 2.1, PI 6.1, PI 6.3, PI 6.4
CLO#07	**Work** effectively in a team environment, demonstrating strong leadership skills, collaboration, and communication skills.	PI 5.1, PI 5.2, PI 5.3, PI 5.4

CLO#08	**Address** ethical considerations related to the project, including data privacy, security, and intellectual property.	PI 4.1, PI 4.2
CLO#09	**Present** the project proposal and initial findings clearly and professionally to a diverse audience, including peers, faculty, and industry professionals.	PI 3.2, PI 3.3, PI 3.4
CLO#10	**Demonstrate** critical thinking, innovative approaches, and the emerging trends to solving complex IT problems.	PI 1.4, PI 4.4

CLO-PI-SO Mapping

	SO-1	**SO-2**	**SO-3**	**SO-4**	**SO-5**	**SO-6**
CLO#01	PI 1.1	-	-	-	-	-
CLO#02	PI 1.3	-	-	-	-	-
CLO#03	-	PI 2.2	-	-	-	-
CLO#04	PI 1.2	-	-	-	-	-
CLO#05	-	-	PI 3.1	-	-	-
CLO#06	PI 2.1	-	-	-	-	PI 6.1, PI 6.3 PI 6.4
CLO#07	-	-	-	-	PI 5.1, PI 5.2, PI 5.3, PI 5.4	-
CLO#08	-	-	-	PI 4.1, PI 4.2	-	-
CLO#09	-	-	PI 3.2, PI 3.3 PI 3.4	-	-	-
CLO#10	PI 1.4	-	-	PI 4.4	-	-