



Planning and Quality Assurance Affairs

Course Specifications

Course name	Software Management
Course number	ITSE4304
Faculty	
Department	
Course type	Major Needs
Course level	4
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

- 1 Student will be able to appreciate the importance of software management
- 2 Student will be able to acquire knowledge of people management
- 3 Student will be able to develop skills to perform software management analysis
- 4 Student will be able to develop skills to perform effort estimation
- 5 Student will be able to develop skills to perform software process analysis and improvement
- 6 Student will be able to acquire knowledge of plan-driven and agile management techniques
- 7 Student will be able to develop skills to write project and quality plans
- 8 Student will be able to utilize software management tools
- 9 Student will be able to develop skills to perform risk management

Intended Learning Outcomes

Knowledge and Understanding Student will be able to explain team building methods Student will be able to describe behavioral models Student will be able to describe personality types Student will be able to describe personality types Student will be able to describe crisis management strategies Student will be able to describe crisis management Student will be able to describe estimation principles Student will be able to describe persoens improvement techniques Student will be able to perform risk analysis Student will be able to compare conflict management techniques Student will be able to compare effort estimation strategies Student will be able to develop project schedules Student will be able to develop project schedules Student will be able to develop project schedules Student will be able to perform pert analysis Student will be able to perform lonction point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to perform work breakdown Student will be able to perform work breakdown Student will be able to define project sco			
 Student will be able to describe behavioral models Student will be able to describe personality types Student will be able to describe risk management strategies Student will be able to describe crisis management Student will be able to describe crisis management Student will be able to describe process improvement techniques Student will be able to describe process improvement techniques Student will be able to perform risk analysis Student will be able to compare conflict management techniques Student will be able to compare effort estimation strategies Student will be able to develop project schedules Student will be able to develop project schedules Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to perform function point analysis Student will be able to perform function point analysis Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to perform software management tools Student will be able to perform software management tools Student will be able to perform software management tools Student will be able to perform software management tools Student will be able to perform software management tools Student will be able to perform software management tools Student will be able to perform software management tools Student will be able to perform software management tools Student will be able to perform software management tools Student will be able to perform work breakdown Student will be able to perform work breakdown 	Knowledge and Understanding	*	Student will be able to explain team building methods
 Student will be able to describe personality types Student will be able to describe risk management strategies Student will be able to describe crisis management Student will be able to describe estimation principles Student will be able to describe process improvement techniques Student will be able to perform risk analysis Student will be able to compare conflict management techniques Student will be able to compare effort estimation strategies Student will be able to compare software development models Student will be able to develop project schedules Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to perform function point analysis Student will be able to perform function point analysis Student will be able to perform function point analysis Student will be able to perform function point analysis Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to develop project plan Student will be able to perform software management tools Student will be able to perform software management tools 		*	Student will be able to describe behavioral models
 Student will be able to describe risk management strategies Student will be able to describe crisis management Student will be able to describe estimation principles Student will be able to describe process improvement techniques Student will be able to describe process improvement techniques Student will be able to perform risk analysis Student will be able to compare conflict management techniques Student will be able to compare offort estimation strategies Student will be able to develop project schedules Student will be able to develop project schedules Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to perform function point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to perform software management tools Student will be able to develop project plan Student will be able to implement a project plan Student will be able to implement a project plan Student will be able to perform work breakdown 		*	Student will be able to describe personality types
 Student will be able to describe crisis management Student will be able to describe estimation principles Student will be able to describe process improvement techniques Student will be able to perform risk analysis Student will be able to perform risk analysis Student will be able to compare conflict management techniques Student will be able to compare effort estimation strategies Student will be able to compare software development models Student will be able to develop project schedules Student will be able to develop project schedules Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to apply COCOMO model Student will be able to perform function point analysis Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to develop project plan Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to describe risk management strategies
 Student will be able to describe estimation principles Student will be able to describe process improvement techniques Student will be able to perform risk analysis Student will be able to perform risk analysis Student will be able to compare conflict management techniques Student will be able to compare effort estimation strategies Student will be able to compare offort estimation strategies Student will be able to develop project schedules Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to perform function point analysis Student will be able to perform object-point analysis Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to develop project plan Student will be able to develop project plan Student will be able to perform work breakdown Student will be able to develop project scope 		*	Student will be able to describe crisis management
 Student will be able to describe process improvement techniques Student will be able to perform risk analysis Student will be able to compare conflict management techniques Student will be able to compare effort estimation strategies Student will be able to compare software development models Student will be able to develop project schedules Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to perform function point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to perform software management tools Student will be able to discuss fortware management tools Student will be able to perform software sizing Student will be able to develop project plan Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to perform work breakdown Student will be able to perform work breakdown 		*	Student will be able to describe estimation principles
Intellectual Skills Student will be able to perform risk analysis Student will be able compare conflict management techniques Student will be able to compare effort estimation strategies Student will be able to compare software development models Professional Skills Student will be able to develop project schedules Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to apply COCOMO model Student will be able to perform function point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to perform work breakdown		*	Student will be able to describe process improvement techniques
 Student will be able compare conflict management techniques Student will be able to compare effort estimation strategies Student will be able to compare software development models Student will be able to develop project schedules Student will be able to develop project schedules Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to perform function point analysis Student will be able to perform opert analysis Student will be able to perform software development analysis Student will be able to perform function point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to perform work breakdown 	Intellectual Skills	*	Student will be able to perform risk analysis
 Student will be able to compare effort estimation strategies Student will be able to compare software development models Student will be able to develop project schedules Student will be able to perform pert analysis Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to perform function point analysis Student will be able to perform object-point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to perform software sizing Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to perform work breakdown 		*	Student will be able compare conflict management techniques
 Student will be able to compare software development models Student will be able to develop project schedules Student will be able to perform pert analysis Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to apply COCOMO model Student will be able to perform function point analysis Student will be able to perform object-point analysis Student will be able to perform use case analysis Student will be able to discuse software management tools Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to compare effort estimation strategies
Professional Skills * Student will be able to develop project schedules * Student will be able to perform pert analysis * Student will be able to discuss similarities and differences between plan-driven and agile management * Student will be able to apply COCOMO model * Student will be able to perform function point analysis * Student will be able to perform object-point analysis * Student will be able to perform use case analysis * Student will be able to perform software sizing * Student will be able to utilize software management tools * Student will be able to implement a project plan * Student will be able to perform work breakdown * Student will be able to perform work breakdown		*	Student will be able to compare software development models
 Student will be able to perform pert analysis Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to apply COCOMO model Student will be able to perform function point analysis Student will be able to perform object-point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to perform work breakdown 	Professional Skills	*	Student will be able to develop project schedules
 Student will be able to discuss similarities and differences between plan-driven and agile management Student will be able to apply COCOMO model Student will be able to perform function point analysis Student will be able to perform object-point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to perform pert analysis
 plan-driven and agile management Student will be able to apply COCOMO model Student will be able to perform function point analysis Student will be able to perform object-point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to discuss similarities and differences between
 Student will be able to apply COCOMO model Student will be able to perform function point analysis Student will be able to perform object-point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to utilize software management tools Student will be able to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 			plan-driven and agile management
 Student will be able to perform function point analysis Student will be able to perform object-point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to utilize software management tools Student will be to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to apply COCOMO model
 Student will be able to perform object-point analysis Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to utilize software management tools Student will be to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to perform function point analysis
 Student will be able to perform use case analysis Student will be able to perform software sizing Student will be able to utilize software management tools Student will be to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to perform object-point analysis
 Student will be able to perform software sizing Student will be able to utilize software management tools Student will be to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to perform use case analysis
 Student will be able to utilize software management tools Student will be to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to perform software sizing
 Student will be to develop project plan Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to utilize software management tools
 Student will be able to implement a project plan Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be to develop project plan
 Student will be able to perform work breakdown Student will be able to define project scope 		*	Student will be able to implement a project plan
 Student will be able to define project scope 		*	Student will be able to perform work breakdown
		*	Student will be able to define project scope

Course Contents

 Major issues and techniques of project management: team building, people management, risk assessment and management, scheduling, Pert analysis, planning, quality planning, and conflict management. Plan-driven and agile management. Software sizing. Effort estimation strategies. Estimation techniques: COCOMO, function point analysis, object-point analysis, use case analysis, SLOC. Process Improvement techniques. CMMI-Dev. Software management tools

Teaching and Learning Methods

- 1 Lectures
- 2 Assignments

Students Assessment

Assessment Method	TIME	MARKS
Midterm I	6th Week	20
Midterm II	9th Week	20
Attendance & Assignments		10
Final Exam	16th Week	50