Project Management (Training Road Map)

2010

IT Skill Standards Center

IT Human Resources Development Headquarters

INFORMATION-TECHNOLOGY PROMOTION AGENCY (IPA), JAPAN

Ministry of Economy, Trade and Industry

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Project Management (System Development) Training Course Group

	Inexperienced (aim at level 1)	Level 1 (aim at level 2)	Level 2 (aim at level 3)	Lever 3 (aim at level 4)	Level 4 (aim at level 5)	Level 5 (aim at level 6)	Level 6 (aim at level 7)	Level 7
Technology			System Design System Development System Operations / Maintenance	Latest Technology Trends				
Methodology				System Requirements Definition Techniques Consulting Methodology	DOA Structured Techniques	Community Activities		
Project Management			Project Management Fundamentals	Project Management Methodology Practice of Project Management	Complex Project Management Project Management - Advanced Level -			
Business/ Industry				Industry Application Trends Latest Business Trends				
Personal				Leadership Skills Required in Project Management Communication Skills Required in Project Management Negotiation Skills Required in Project Management				

Latest Project Management Trends

:Common to a job category

: Specific to each specialty field

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Project Management (IT Outsourcing) Training Course Group

	Inexperienced (aim at level 1)	Level 1 (aim at level 2)	Level 2 (aim at level 3)	Lever 3 (aim at level 4)	Level 4 (aim at level 5)	Level 5 (aim at level 6)	Level 6 (aim at level 7)	Level 7
Technology			System Design System Development System Operations / Maintenance	Latest Technology Trends			Community Activities	
Methodology				System Requirements Definition Techniques Consulting Methodology		System Operation Management Methodology for Outsourcing Project Management		
Project Management			Project Management Fundamentals	Practice of Project Management Latest Project Management Trends	Complex Project Management Project Management - Advanced Level -	Outsourcing Business Project Management		
Business/ Industry				Industry Application Trends Latest Business Trends				
Personal				Leadership Skills Required in Project Management Communication Skills Required in Project Management Negotiation Skills Required in Project Management				

:Common to a job category

: Specific to each specialty field

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Project Management (Network Service) Training Course Group

	Inexperienced (aim at level 1)	Level 1 (aim at level 2)	Level 2 (aim at level 3)	Lever 3 (aim at level 4)	Level 4 (aim at level 5)	Level 5 (aim at level 6)	Level 6 (aim at level 7)	Level 7
Technology			System Design System Development System Operations / Maintenance	Latest Technology Trends			Community Activities	
Methodology				System Requirements Definition Techniques Consulting Methodology		Examples of Network Project Management		
Project Management			Project Management Fundamentals	Project Management Methodology Practice of Project Management	Complex Project Management Project Management - Advanced Level -			
				Latest Project Management Trends				
Business/ Industry				Industry Application Trends Latest Business Trends				
Personal				Leadership Skills Required in Project Management Communication Skills Required in Project Management Negotiation Skills Required in Project Management				

:Common to a job category

: Specific to each specialty field

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Project Management (Software Product Development) Training Course Group

	Inexperienced (aim at level 1)	Level 1 (aim at level 2)	Level 2 (aim at level 3)	Lever 3 (aim at level 4)	Level 4 (aim at level 5)	Level 5 (aim at level 6)	Level 6 (aim at level 7)	Level 7
Technology			System Design System Development System Operations / Maintenance	Latest Technology Trends			Community Activities	
Methodology				System Requirements Definition Techniques Consulting Methodology		Software Product Development Project Management		
Project Management			Project Management Fundamentals	Project Management Methodology Practice of Project Management Latest Project Management Trends	Complex Project Management Project Management - Advanced Level -			
Business/ Industry				Industry Application Trends Latest Business Trends				
Personal				Leadership Skills Required in Project Management Communication Skills Required in Project Management Negotiation Skills Required in Project Management				

:Common to a job category

: Specific to each specialty field

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Project Management (System Development) Course List

Training Course Level		Training Course Group Name	Training Course Name	Method			Standard Duration		Page
				E-Learning	Lecture	Workshop	E-Learning (Total hours)	Class (Total days)	
Common to Job Category	Basic Course	System Design	System Design Fundamentals	*	*	*	30	5	16
		System Development	System Development	*		*	60	5	19
		System Operations / Maintenance	System Operations / Maintenance	*	*	*	30	5	22
		Project Management Fundamentals	Project Management Fundamentals	*			30		26
		Practice of Project Management	Practice of Project Management		*	*		4	32
			Project Management Tools and Processes	*			12		37
		System Requirements Definition Techniques	System Requirements Definition Techniques	*		*	12	3	40
		Consulting Methodology	Consulting Methodology	*	*	*	12	2	43
	Advanced Course	Leadership Skills Required in Project Management	Leadership Skills Required in Project Management			*		3	46
		Communication Skills Required in Project Management	Communication Skills Required in Project Management			*		3	49
		Negotiation Skills Required in Project Management	Negotiation Skills Required in Project Management			*		3	52
		Complex Project Management	Complex Project Management			*		3	55
		Project Management - Advanced Level -	Quality Management System		*	*		2	63
			Risk Management			*		3	65
			Financial Management	*	*	*	24	3	67
			Procurement Management		*	*		3	69
			Contract Administration in Project Management	*			12		72
	Special Course	Latest Technology Trends	Latest Technology Trends		*			1	75
		Latest Project Management Trends	Latest Project Management Trends	*			3		78
		Latest Business Trends	Latest Business Trends	*	*		3	0.5	85
		Industry Application Trends	Industry Application Trends	*	*		12	2	88
		Community Activities	Community Activities	-	-	-	-	-	91

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Training Course Level		Training Course Group Name	Training Course Name	Method			Standard Duration		Page
				E-Learning	Lecture	Workshop	E-Learning (Total hours)	Class (Total days)	
Specific to Each Specialty Field <Selective Courses>	Basic Course	Project Management Methodology (System Development)	Project Management Methodology (System Development)	*	*	*	18	2	94
	Advanced Course	DOA Structured Techniques	DOA Structured Techniques	*			12		97

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Project Management (IT Outsourcing) Course List

Training Course Level		Training Course Group Name	Training Course Name	Method			Standard Duration		Page
				E-Learning	Lecture	Workshop	E-Learning (Total hours)	Class (Total days)	
Common to Job Category	Basic Course	System Design	System Design Fundamentals	*	*	*	30	5	16
		System Development	System Development	*		*	60	5	19
		System Operations / Maintenance	System Operations / Maintenance	*	*	*	30	5	22
		Project Management Fundamentals	Project Management Fundamentals	*			30		26
		Practice of Project Management	Practice of Project Management		*	*		4	32
			Project Management Tools and Processes	*			12		37
		System Requirements Definition Techniques	System Requirements Definition Techniques	*		*	12	3	40
		Consulting Methodology	Consulting Methodology		*	*		3	43
	Advanced Course	Leadership Skills Required in Project Management	Leadership Skills Required in Project Management			*		3	46
		Communication Skills Required in Project Management	Communication Skills Required in Project Management			*		3	49
		Negotiation Skills Required in Project Management	Negotiation Skills Required in Project Management			*		3	52
		Complex Project Management	Complex Project Management			*		3	55
		Project Management - Advanced Level -	Quality Management System		*	*		2	63
			Risk Management			*		3	65
			Financial Management	*	*	*	24	3	67
			Procurement Management		*	*		3	69
			Contract Administration in Project Management	*			12		72
	Special Course	Latest Technology Trends	Latest Technology Trends		*			1	75
		Latest Project Management Trends	Latest Project Management Trends	*			3		78
		Latest Business Trends	Latest Business Trends	*	*		3	0.5	85
		Industry Application Trends	Industry Application Trends	*	*		12	2	88
		Community Activities	Community Activities	-	-	-	-	-	91

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Training Course Level		Training Course Group Name	Training Course Name	Method			Standard Duration		Page
				E-Learning	Lecture	Workshop	E-Learning (Total hours)	Class (Total days)	
Specific to Each Specialty Field <Selective Courses>	Advanced Course	System Operations Management Methodology for Outsourcing Project Management	System Operations Management Methodology for Outsourcing Project Management		*	*		3	116
		Outsourcing Business Project Management	Overview of Outsourcing Project Management		*	*		2	119
			Practice of Outsourcing Project Management		*	*		5	125
			Overviews of Accounting and Business Management for Outsourcing Project Management	*			12		131

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Project Management (Network Service) Course List

Training Course Level		Training Course Group Name	Training Course Name	Method			Standard Duration		Page
				E-Learning	Lecture	Workshop	E-Learning (Total hours)	Class (Total days)	
Common to Job Category	Basic Course	System Design	System Design Fundamentals	*	*	*	30	5	16
		System Development	System Development	*		*	60	5	19
		System Operations / Maintenance	System Operations / Maintenance	*	*	*	30	5	22
		Project Management Fundamentals	Project Management Fundamentals	*			30		26
		Practice of Project Management	Practice of Project Management		*	*		4	32
			Project Management Tools and Processes	*			12		37
		System Requirements Definition Techniques	System Requirements Definition Techniques	*		*	12	3	40
		Consulting Methodology	Consulting Methodology		*	*		3	43
	Advanced Course	Leadership Skills Required in Project Management	Leadership Skills Required in Project Management			*		3	46
		Communication Skills Required in Project Management	Communication Skills Required in Project Management			*		3	49
		Negotiation Skills Required in Project Management	Negotiation Skills Required in Project Management			*		3	52
		Complex Project Management	Complex Project Management			*		3	55
		Project Management - Advanced Level -	Quality Management System		*	*		2	63
			Risk Management			*		3	65
			Financial Management	*	*	*	24	3	67
			Procurement Management		*	*		3	69
			Contract Administration in Project Management	*			12		72
	Special Course	Latest Technology Trends	Latest Technology Trends		*			1	75
		Latest Project Management Trends	Latest Project Management Trends	*			3		78
		Latest Business Trends	Latest Business Trends	*	*		3	0.5	85
		Industry Application Trends	Industry Application Trends	*	*		12	2	88
		Community Activities	Community Activities	-	-	-	-	-	91

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Training Course Level		Training Course Group Name	Training Course Name	Method			Standard Duration		Page
				E-Learning	Lecture	Workshop	E-Learning (Total hours)	Class (Total days)	
Specific to Each Specialty Field <Selective Courses>	Basic Course	Project Management Methodology (Network Services)	Project Management Methodology (Network Services)		*	*		2	100
	Advanced Course	Examples of Network Project Management	Examples of Network Project Management	*			3		104

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Project Management (Software Product Development) Course List

Training Course Level		Training Course Group Name	Training Course Name	Method			Standard Duration		Page
				E-Learning	Lecture	Workshop	E-Learning (Total hours)	Class (Total days)	
Common to Job Category	Basic Course	System Design	System Design Fundamentals	*	*	*	30	5	16
		System Development	System Development	*		*	60	5	19
		System Operations / Maintenance	System Operations / Maintenance	*	*	*	30	5	22
		Project Management Fundamentals	Project Management Fundamentals	*			30		26
		Practice of Project Management	Practice of Project Management		*	*		4	32
			Project Management Tools and Processes	*			12		37
		System Requirements Definition Techniques	System Requirements Definition Techniques	*		*	12	3	40
		Consulting Methodology	Consulting Methodology		*	*		3	43
	Advanced Course	Leadership Skills Required in Project Management	Leadership Skills Required in Project Management			*		3	46
		Communication Skills Required in Project Management	Communication Skills Required in Project Management			*		3	49
		Negotiation Skills Required in Project Management	Negotiation Skills Required in Project Management			*		3	52
		Complex Project Management	Complex Project Management			*		3	55
		Project Management - Advanced Level -	Quality Management System		*	*		2	63
			Risk Management			*		3	65
			Financial Management	*	*	*	24	3	67
			Procurement Management		*	*		3	69
			Contract Administration in Project Management	*			12		72
	Special Course	Latest Technology Trends	Latest Technology Trends		*			1	75
		Latest Project Management Trends	Latest Project Management Trends	*			3		78
		Latest Business Trends	Latest Business Trends	*	*		3	0.5	85
		Industry Application Trends	Industry Application Trends	*	*		12	2	88
		Community Activities	Community Activities	-	-	-	-	-	91

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Training Course Level		Training Course Group Name	Training Course Name	Method			Standard Duration		Page
				E-Learning	Lecture	Workshop	E-Learning (Total hours)	Class (Total days)	
Specific to Each Specialty Field <Selective Courses>	Basic Course	Project Management Methodology (Software Product Development)	(Project Management Methodology (Software Product Development)		*	*		5	107
	Advanced Course	Software Product Development Project Management	Software Product Development Project Management		*	*		5	111

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Project Management
Training Course Description
<Common to Project Management>

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System Design (1 course)

●System Design Fundamentals

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Course Name / Content	System Design Fundamentals
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire broad and fundamental knowledge of system design (e.g., methodology, techniques, and design patterns) universally important for designing general information systems regardless of any application types. ○The attendees learn analysis methods of business requirements of information systems, knowledge important for external and internal design, design methods of user interfaces and interfaces for other systems. The attendees also learn design of information system processing flow associated with the business requirements of information systems, external and internal design, and interfaces between users and other systems, and charts and tools utilized for designing the information system processing flow. ○In the first half, the attendees learn fundamental knowledge of information system design via e-learning type methods. In the second half in addition to lectures, the attendees perform design operations by utilizing a virtual project of information system development through workshops.
Attendee	Those who have participated in projects such as system operations management as members of system development projects and who aspire to perform project management (those who aim to acquire the knowledge of Project Management level 3)
Precondition	Have completed System Development Fundamentals courses group, or possess equivalent knowledge.
Training Method	E-learning, Lecture, Workshop
Duration	[First Half] Standard term: 30 hours (e-learning 6 hours/day x 5 days) [Second Half] Standard term: 5 days (classroom)
Learning Goal	Can design an information system independently as a member of a project by utilizing fundamental knowledge of system design.

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Skill Items	Knowledge Items
Analysis of Business Operations	-Analysis of Technical Requirements Analysis of Existing IT Environment, Understanding of New Technical Requirements, Needs Analysis and Prioritization
Technology	-Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method
Design	-Understanding of Database, Middleware, and Distributed Computing Design Selection of Optimal Database and Middleware and Distributed Computing, Understanding for Function and Restrictions of Database and Middleware and Distributed Computing, Practice of Application Design utilizing Database, Middleware, and Distributed Computing

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System Architecture (1 course)

●System Architecture

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Course Name / Content	System Development
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire fundamental knowledge of information system development. ○In addition to programming languages required in application development, the attendees learn major algorithm, validity of application tests, how to assess results of the application tests, installation and migration of information systems, methods of project progress management. ○Through e-learning type methods in the first half, the attendees perform exercises in major programming languages utilized in information system development and programming languages utilized in middleware, and the attendees also learn major algorithm, various tools utilized in programming, and methods of understanding and management of project progress. In the second half, the attendees learn how to develop information systems by utilizing development environment of virtual information systems in workshops. ○Programming environment for exercises in e-learning type methods should be provided as nearly as possible for real system development environment.
Attendee	Those who have participated in projects of system development as members of the projects and who aspire to perform project management (those who aim to acquire the knowledge of Project Management level 3)
Precondition	Have completed System Development Fundamentals course group, or possess equivalent knowledge.
Training Method	E-learning, Workshop
Duration	[First Half] Standard term: 60 hours (e-learning 6 hours/day x 10 days) [Second Half] Standard term: 5 days (classroom)
Learning Goal	Can develop an information system independently as a member of a project by utilizing fundamental knowledge of system development.

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Skill Items	Knowledge Items
Project Time Management	-Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis -Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts
Technology	-Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method

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System Operations / Maintenance (1 course)

●System Operations / Maintenance

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Course Name / Content	System Operations / Maintenance
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire fundamental knowledge of operations and maintenance of information systems. ○The attendees learn the following important for smooth operations of information systems: management items (operations management, problem management, change control, configuration management, performance management, capacity management, security management, service level management, and information asset management), management methods of the management items, and management item standards. The attendees also learn responses against failures of operating systems and significant middleware, information system monitoring, performance management, preventive measures against human-induced malfunctions and failures and recovery, and system maintenance such as version upgrade of commercially available applications. ○In the first half, the attendees learn fundamental knowledge of information system operations and maintenance via e-learning type methods. In the second half, the attendees learn through lectures and exercises by utilizing the virtual development environment of information systems simulating currently used ones.
Attendee	Those who have participated in projects of system development or system operations management as members of the projects and who aspire to perform project management (those who aim to acquire the knowledge of Project Management level 3)
Precondition	Possess fundamental knowledge of IT and system development and have participated in projects of system development or system operations management.
Training Method	E-learning, Lecture, Workshop
Duration	[First Half] Standard term: 30 hours (e-learning 6 hours/day x 5 days) [Second Half] Standard term: 5 days (classroom)
Learning Goal	Can operate and maintain an information system independently as a member of a project by utilizing fundamental knowledge of system operations and maintenance.

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Skill Items	Knowledge Items
Project Integration Management	-Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Time Management	-Activity Definition Decomposition, Templates, Rolling Wave Planning, Expert Judgment, Planning Component -Activity Sequencing Precedence Diagramming Method (PDM), Arrow Diagramming Method (ADM), Schedule Network Templates, Dependency Determination, Applying Leads and Lags -Activity Resource Estimating Expert Judgment, Alternatives Analysis, Published Estimating Data, Project Management Software, Bottom-up Estimating -Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis -Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts

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Skill Items	Knowledge Items
Project Risk Management	-Risk Management Planning Planning Meetings and Analysis -Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Qualitative Risk Analysis Risk Probability and Impact Assessment, Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment -Quantitative Risk Analysis Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings
Technology	-Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method

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Project Management Fundamentals (1 course)

●Project Management Fundamentals

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Course Name / Content	Project Management Fundamentals
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire fundamental knowledge of project management. ○The attendees learn, based on "PMBOK," a general concept of project management that covers all aspect of basic project management knowledge (e.g., project definitions, organization, plan formulation, schedule plan, project implementation, project management, and project completion) and that is not biased by to characteristics of any industries or fields.
Attendee	Those who have participated in projects of system development, system operations management as members of the projects and who aspire to perform project management (those who aim to acquire the knowledge of Project Management level 3)
Precondition	Possess fundamental knowledge of IT and system development and have participated in projects of system development or system operations management.
Training Method	E-learning
Duration	Standard term: 30 hours (6 hours/day x 5 days)
Learning Goal	Can perform project management activities as a member of a project by utilizing fundamental knowledge of project management.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Direct and Manage Project Execution Project Management Methodology, Project Management Information System (PMIS) -Monitor and Control Project Work Project Management Methodology, Project Management Information System (PMIS), Earned Value Management, Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Close Project Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Scope Management	-Scope Planning Expert Judgment, Templates and Forms and Standards -Scope Definition Product Analysis, Alternatives Identification, Expert Judgment, Stakeholder Analysis -Create WBS Work Breakdown Structure Templates Decomposition -Scope Verification Inspection -Scope Control Change Control System, Variance Analysis, Replanning, Configuration Management System

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Skill Items	Knowledge Items
Project Time Management	-Activity Definition Decomposition, Templates, Rolling Wave Planning, Expert Judgment, Planning Component -Activity Sequencing Precedence Diagramming Method (PDM), Arrow Diagramming Method (ADM), Schedule Network Templates, Dependency Determination, Applying Leads and Lags -Activity Resource Estimating Expert Judgment, Alternatives Analysis, Published Estimating Data, Project Management Software, Bottom-up Estimating -Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis -Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management

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Skill Items	Knowledge Items
Project Quality Management	-Quality Planning Cost-benefit Analysis, Benchmarking, Design of Experiments, Cost of Quality(COQ), Additional Quality Planning Tools -QA (Perform Quality Assurance) Quality Planning Tools and Techniques, Quality Audits, Process Analysis, Quality Control Tools and Techniques -QC (Perform Quality Control) Cause and Effect of Diagram, Control Charts, Flowcharting, Histogram, Pareto Chart, Run Chart, Scatter Diagram, Statistical Sampling, Inspection, Defect Repair Review
Project Human Resource Management	-Human Resource Planning Organization Charts and Position Descriptions, Networking, Organizational Theory -Acquire Project Team Pre-Assignment, Negotiation, Acquisition, Virtual Teams -Develop Project Team General Management Skills, Training, Team-Building Activities, Ground Rules, Co-Location, Recognition and Rewards -Manage Project Team Observation and Conversation, Project Performance Appraisals, Conflict Management, Issue Log
Project Communication Management	-Communication Planning Communications Requirements Analysis, Communications Technology -Information Distribution Communications Skills, Information Gathering and Retrieval Systems, Information Distribution Methods, Lessons Learned Process -Performance Reporting Information Presentation Tools, Performance Information gathering and Compilation, Status Review Meetings, Time Reporting Systems, Cost Reporting Systems -Manage Stakeholders Communications Methods, Issue Logs

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Skill Items	Knowledge Items
Project Risk Management	-Risk Management Planning Planning Meetings and Analysis -Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Qualitative Risk Analysis Risk Probability and Impact Assessment, Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment -Qualitative Risk Analysis Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings
Project Procurement Management	-Plan Purchases and Acquisitions Make-or-Buy Analysis, Expert Judgment, Contract Types -Plan Contracting Standard Forms, Expert Judgment -Request Seller Responses Bidder Conferences, Advertising, Develop Qualified Sellers List -Select Sellers Weighting System, Independent Estimates, Screening System, Contract Negotiation, Seller Rating Systems, Expert Judgment, Proposal Assessment Techniques -Contract Administration Contract Change Control System, Buyer-Conducted Performance Review, Inspections and Audits, Performance Reporting, Payment System, Claims Administration, Records Management System, Information Technology -Contract Closure Procurement Audits, Records Management System

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Practice of Project Management (2 courses)

- Practice of Project Management
- Project Management Tools and Processes

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Course Name / Content	Practice of Project Management
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This is one of the courses in Practice of Project Management course group, which is the subsequent of Project Management Fundamentals course group. Attendees acquire practical knowledge of general project management. ○The attendees utilize the fundamental knowledge acquired in Project Management Fundamentals course group to deepen their project management knowledge and to gain more practical project management knowledge by performing exercises and case studies. ○The attendees review fundamental project management theory and techniques in lectures, and perform case studies to gain practical knowledge in workshops.
Attendee	Have participated in projects as members of the projects (those who aim to acquire the knowledge of Project Management level 4)
Precondition	Have completed Project Management Fundamental course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop
Duration	Standard term: 4 days (classroom)
Learning Goal	Can complete a project as a person responsible for the project by utilizing practical knowledge of project management.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Direct and Manage Project Execution Project Management Methodology, Project Management Information System (PMIS) -Monitor and Control Project Work Project Management Methodology, Project Management Information System (PMIS), Earned Value Management, Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Close Project Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Scope Management	-Scope Planning Expert Judgment, Templates and Forms and Standards -Scope Definition Product Analysis, Alternatives Identification, Expert Judgment, Stakeholder Analysis -Create WBS Work Breakdown Structure Templates Decomposition -Scope Verification Inspection -Scope Control Change Control System, Variance Analysis, Replanning, Configuration Management System

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Skill Items	Knowledge Items
Project Time Management	-Activity Definition Decomposition, Templates, Rolling Wave Planning, Expert Judgment, Planning Component Activity Sequencing Precedence Diagramming Method (PDM), Arrow Diagramming Method (ADM), Schedule Network Templates, Dependency Determination, Applying Leads and Lags -Activity Resource Estimating Expert Judgment, Alternatives Analysis, Published Estimating Data, Project Management Software, Bottom-up Estimating -Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management

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Skill Items	Knowledge Items
Project Quality Management	-Quality Planning Cost-benefit Analysis, Benchmarking, Design of Experiments, Cost of Quality(COQ), Additional Quality Planning Tools -QA (Perform Quality Assurance) Quality Planning Tools and Techniques, Quality Audits, Process Analysis, Quality Control Tools and Techniques -QC (Perform Quality Control) Cause and Effect of Diagram, Control Charts, Flowcharting, Histogram, Pareto Chart, Run Chart, Scatter Diagram, Statistical Sampling, Inspection, Defect Repair Review
Project Human Resource Management	-Human Resource Planning Organization Charts and Position Descriptions, Networking, Organizational Theory -Acquire Project Team Pre-Assignment, Negotiation, Acquisition, Virtual Teams -Develop Project Team General Management Skills, Training, Team-Building Activities, Ground Rules, Co-Location, Recognition and Rewards -Manage Project Team Observation and Conversation, Project Performance Appraisals, Conflict Management, Issue Log
Project Communication Management	-Communication Planning Communications Requirements Analysis, Communications Technology -Information Distribution Communications Skills, Information Gathering and Retrieval Systems, Information Distribution Methods, Lessons Learned Process -Performance Reporting Information Presentation Tools, Performance Information gathering and Compilation, Status Review Meetings, Time Reporting Systems, Cost Reporting Systems -Manage Stakeholders Communications Methods, Issue Logs

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Skill Items	Knowledge Items
Project Risk Management	-Risk Management Planning Planning Meetings and Analysis -Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Qualitative Risk Analysis Risk Probability and Impact Assessment, Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment -Quantitative Risk Analysis Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings
Project Procurement Management	-Plan Purchases and Acquisitions Make-or-Buy Analysis, Expert Judgment, Contract Types -Plan Contracting Standard Forms, Expert Judgment -Request Seller Responses Bidder Conferences, Advertising, Develop Qualified Sellers List -Select Sellers Weighting System, Independent Estimates, Screening System, Contract Negotiation, Seller Rating Systems, Expert Judgment, Proposal Assessment Techniques -Contract Administration Contract Change Control System, Buyer-Conducted Performance Review, Inspections and Audits, Performance Reporting, Payment System, Claims Administration, Records Management System, Information Technology -Contract Closure Procurement Audits, Records Management System

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Course Name / Content	Project Management Tools and Processes
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This is one of the courses in Practice of Project Management course group, which is the subsequent of Project Management Fundamentals course group. Attendees acquire knowledge of management tools helpful for project management and business procedures associated with implementation of project management. ○The attendees learn overviews of functions of project management tools available in the market and utilized in actual projects, how to utilize the project management tools, and business operations processes (e.g., project registration, contract administration, personnel management, outsourcing management, progress management, change control, and closing procedures) necessary for project management in companies.. ○Depending on project management tools that the attendees will learn, training contents can be provided via e-learning type methods or in workshops, and training duration also differ according to the project management tools.
Attendee	Those who have participated in projects as members of the projects (those who aim to acquire the knowledge of Project Management level 4)
Precondition	Have completed Project Management Fundamentals course group, or possess equivalent knowledge.
Training Method	E-learning (Workshop if necessary)
Duration	Standard term: 12 hours (e-learning 6 hours/day x 2 days) Training duration differs depending on project management tools that the attendees learn or business operations processes of each company.
Learning Goal	Can complete a project as a person responsible for the project by utilizing project management tools and following suitable business operations processes of project management.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Direct and Manage Project Execution Project Management Methodology, Project Management Information System (PMIS) -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment

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System Requirements Definition Techniques (1 courses)

●System Requirements Definition Techniques

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Course Name / Content	System Requirements Definition Techniques
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees learn processes and methods of requirements definition important for defining customer's business requirements and system requirements objectively and promoting smooth system development. ○The attendees learn basic processes in requirements definition phases (e.g., business strategies, confirmation of business policies, project scope definition, interview with user departments, data collection, data organization, data analysis, analysis of old and new business processes, design of new business processes, analysis of system environment, definition of system requirements, requirements verification, and creation of requirements definition). The attendees also learn practical requirements definition methodologies (e.g., prioritization on, narrowing of, and decision on customer's requirements based on constraints such as development duration, budget, or a framework) important for actual project operations. ○In the first half, the attendees learn basic processes of and points on requirements definition via e-learning type methods In the second half, the attendees learn how to understand and narrow customer's requirements through experiencing simulated cases in workshops.
Attendee	Those who have participated in projects as members of the projects (those who aim to acquire the knowledge of Project Management level 4)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	E-learning, Workshop
Duration	[First Half] Standard term: 12 hours (e-learning 6 hours/day x 2 days) [Second Half] Standard term: 3 days (classroom)
Learning Goal	Can define system requirements as a person responsible for a project based on understanding of customer's business requirements and by utilizing knowledge of requirements definition.

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Skill Items	Knowledge Items
Business Operations	-Analysis of Business Operation Requirement Understanding of User Needs, Needs Analysis and Prioritization Analysis of Technical Requirements Analysis of Existing IT Environment, Understanding of New Technical Requirements, Needs Analysis and Prioritization -Establishment of Customer Relationship -Industry Knowledge Utilization of Industry Common Applications Knowledge, Utilization of industry Specific Applications Knowledge, Understanding of Industry Business Trend, Technology Trend and Competition Status, Understanding and Utilization of Industry Terms and Relevant Regulations, Understanding and Utilization of Industry Specific Business Environments, Understanding and Utilization of Industry Specific Business Practice, Understanding and Utilization of Industry Specific Business Operations

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Consulting Methodology (1 course)

●Consulting Methodology

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Course Name / Content	Consulting Methodology
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees understand fundamental consulting methodology, consulting processes, and techniques utilized in the consulting processes. The attendees also learn how to utilize the consulting related knowledge and techniques above. ○In the first half, the attendees learn the following via e-learning type methods; a flow of entire consulting processes using consulting techniques, techniques for data collection, data organization, and data analysis, problem extraction, problem analysis techniques, review of problem solving plans, how to formulate the problem solving plans, problem solving processes, how to prepare logical and effective reports, presentation, and negotiation. In the second half, the attendees learn how to apply consulting processes utilizing consulting methodologies, and review example cases of the consulting processes in workshops.
Attendee	Those who have participated in projects as members of projects (those who aim to acquire the knowledge of Project Management level 4)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	E-learning, Lecture, Workshop
Duration	[First Half] Standard term: 12 hours (e-learning 6 hours/day x 2 days) [Second Half] Standard term: 2 days (classroom)
Learning Goal	Can go through consulting processes effectively as a person responsible for a project by utilizing fundamental consulting knowledge.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Utilization of Consulting Methodology	-Selection and Utilization of Consulting Techniques Comparison, Analysis, Selection and Usage of Consulting Techniques, Definition and Practice of Process, Definition and Creation of Deliverables
Knowledge Management and Utilization	-Management and Utilization of Knowledge Databases Creation of Knowledge (Added Value, Structuring, Sharing), Knowledge Utilization, Maintenance and Management of Knowledge, Understanding of Effects and Improvement, Business Model Patents

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Leadership Skills Required in Project Management (1 course)

●Leadership Skills Required in Project Management

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Course Name / Content	Leadership Skills Required in Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire practical skills of the following that are success factors of any projects: object setting, team building, communication with people within and outside teams, creation of project action items, promotion of the project action items, management of the project action items, and skills for motivating team members. ○The attendees learn, in workshops including role-play, the following items required to promote medium-sized, large-sized, or complex projects: leadership, self motivation, motivating team members through team building, interpersonal skills, discord management, and consensus building.
Attendee	Those who have participated in projects as leaders or members of project (those who aim to acquire the knowledge of Project Management level 4 or 5)
Precondition	Possess fundamental leadership knowledge.
Training Method	Workshop
Duration	Standard term: 3 days (classroom)
Learning Goal	Can take leadership and give instructions for completion of a project as a person responsible for the project by utilizing practical management and operations skills of a project team.

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Skill Items	Knowledge Items
Leadership	-Leadership Fundamentals and Principles of Leadership, Teamwork and Communication, Project Objective Setting, Project Promotion, Project Execution, Project Management, Collaboration Between Team Members, Motivating Team Members and Provision for Feelings of Accomplishment

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Communication Skills Required in Project Management (1 course)

●Communication Skills Required in Project Management

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Course Name / Content	Communication Skills Required in Project Management
Training Course Level	☐Introductory Course ☐ Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire the following practical skills that are a success factor of any projects: effective and efficient communication with people involved in projects,. ○The attendees learn, in workshops including role-play, the following important for promotion of medium-sized, large-sized, or complex projects: two-way communication, passing of information, processing of information.
Attendee	Those who have participated in projects as leaders or members of projects (those who aim to acquire the knowledge of Project Management level 4 or 5)
Precondition	Possess fundamental communication knowledge.
Training Method	Workshop
Duration	Standard term: 3 days (classroom)
Learning Goal	Can promote interaction with a person responsible on customer side as a person responsible for a project by utilizing practical communication skills.

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Skill Items	Knowledge Items
Communication	-2-Way Communication Dialogue and Interview, Information Transfer, Communication Technique, Effective Speaking and Listening -Transmission of Information Presentation Technique, Creation of Official and Nonofficial Documents, Technical Writing, Media Selection, Persuasion Technique -Organization, Analysis and Retrieval of Information Development and Practice of Status Response Capabilities to Understand Situations, Capabilities to Understand Situations, Meeting Management Techniques

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Negotiation Skills Required in Project Management (1 course)

●Negotiation Skills Required in Project Management

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Course Name / Content	Negotiation Skills Required in Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire practical skills of negotiation important for any situations or scenes in projects. ○ About negotiation with people concerned with any scenes or situations in medium-sized, large-sized, or complex projects, the attendees learn and perform role-play in workshops in how to divide negotiation phases into several phases, how to understand expected problems, and how to formulate problem solving solutions with negotiating partners. The attendees learn negotiation with people concerned and negotiation processes.
Attendee	Those who have participated in projects as leaders or members of projects (those who aim to acquire the knowledge of Project Management level 4 or 5)
Precondition	Possess fundamental negotiation knowledge.
Training Method	Workshop
Duration	Standard term: 3 days (classroom)
Learning Goal	Can build consensus effectively with a person responsible on customer side as a person responsible for a project by utilizing practical project negotiation skills.

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Skill Items	Knowledge Items
Negotiation	-Negotiation Negotiation Process, Effective Negotiation Techniques, Establishment of Trust Relationship, Objective Setting, Common Interest, Logical Thinking, Problem Solving Techniques

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Complex Project Management (1 course)

●Complex Project Management

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Course Name / Content	Complex Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This course helps attendees acquire knowledge of management capabilities to complete projects successfully in complex project environment (e.g., system requirements, design requirements, application requirement, project frameworks, and contract terms). ○The attendees learn the following in workshops including simulation: sophisticated system requirements (e.g., advanced-level platforms, mission critical platforms, high-level performance platforms, and multiple platforms), projects requiring application requirements, short-term development, large-sized development, frameworks (e.g., complex cooperative relationship, contract terms, and completion terms), need-to-know points and considerations that are based on fundamental project management theory in projects demanding complex contract requirements.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management level 5 or 6)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Workshop
Duration	Standard term: 3 days (classroom)
Learning Goal	Can manage whole project process in a complex project as a person responsible for the project.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment Direct and Manage Project Execution Project Management Methodology, Project Management Information System (PMIS) -Monitor and Control Project Work Project Management Methodology, Project Management Information System (PMIS), Earned Value Management, Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Scope Management	-Scope Planning Expert Judgment, Templates and Forms and Standards -Scope Definition Product Analysis, Alternatives Identification, Expert Judgment, Stakeholder Analysis -Create WBS Work Breakdown Structure Templates Decomposition -Scope Verification Inspection -Scope Control Change Control System, Variance Analysis, Replanning, Configuration Management System

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Skill Items	Knowledge Items
Project Time Management	-Activity Definition Decomposition, Templates, Rolling Wave Planning, Expert Judgment, Planning Component -Activity Sequencing Precedence Diagramming Method (PDM), Arrow Diagramming Method (ADM), Schedule Network Templates, Dependency Determination, Applying Leads and Lags -Activity Resource Estimating Expert Judgment, Alternatives Analysis, Published Estimating Data, Project Management Software, Bottom-up Estimating -Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis -Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management

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Skill Items	Knowledge Items
Project Quality Management	-Quality Planning Cost-benefit Analysis, Benchmarking, Design of Experiments, Cost of Quality(COQ), Additional Quality Planning Tools -QA (Perform Quality Assurance) Quality Planning Tools and Techniques, Quality Audits, Process Analysis, Quality Control Tools and Techniques -QC (Perform Quality Control) Cause and Effect of Diagram, Control Charts, Flowcharting, Histogram, Pareto Chart, Run Chart, Scatter Diagram, Statistical Sampling, Inspection, Defect Repair Review
Project Human Resource Management	-Human Resource Planning Organization Charts and Position Descriptions, Networking, Organizational Theory -Acquire Project Team Pre-Assignment, Negotiation, Acquisition, Virtual Teams -Develop Project Team General Management Skills, Training, Team-Building Activities, Ground Rules, Co-Location, Recognition and Rewards -Manage Project Team Observation and Conversation, Project Performance Appraisals, Conflict Management, Issue Log
Project Communication Management	-Communication Planning Communications Requirements Analysis, Communications Technology -Information Distribution Communications Skills, Information Gathering and Retrieval Systems, Information Distribution Methods, Lessons Learned Process -Performance Reporting Information Presentation Tools, Performance Information gathering and Compilation, Status Review Meetings, Time Reporting Systems, Cost Reporting Systems -Manage Stakeholders Communications Methods, Issue Logs

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Skill Items	Knowledge Items
Project Risk Management	-Risk Management Planning Planning Meetings and Analysis -Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Qualitative Risk Analysis Risk Probability and Impact Assessment, Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment -Quantitative Risk Analysis Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings

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Skill Items	Knowledge Items
Project Procurement Management	-Plan Purchases and Acquisitions Make-or-Buy Analysis, Expert Judgment, Contract Types -Plan Contracting Standard Forms, Expert Judgment -Request Seller Responses Bidder Conferences, Advertising, Develop Qualified Sellers List -Select Sellers Weighting System, Independent Estimates, Screening System, Contract Negotiation, Seller Rating Systems, Expert Judgment, Proposal Assessment Techniques -Contract Administration Contract Change Control System, Buyer-Conducted Performance Review, Inspections and Audits, Performance Reporting, Payment System, Claims Administration, Records Management System, Information Technology -Contract Closure Procurement Audits, Records Management System

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Skill Items	Knowledge Items
Design and Development Management of IT Solutions	-Software Engineering IT Standardization Techniques, Development Techniques, Development Support Tools and Techniques, Programming Techniques, Test Techniques, Reuse Techniques, Security and Privacy, Security Tools and Techniques, External Design, Internal Design, Object Oriented Development, Debug Techniques -Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization -Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method -Latest Technology Trends Understanding of Latest Hardware Technology Trends, Understanding of Latest Middleware Technology Trends, Understanding of Latest Platform Technology trends, Understanding of Latest Network Technology Trends, Understanding of Latest Database Technology Trends, Understanding of Latest Security, Technology Trends, Understanding of Latest System Management Technology Trends

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Project Management - Advanced Level - (5 courses)

- Quality Management System
- Risk Management
- Financial Management
- Precurement Management
- Contract Administration in Project Management

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Course Name / Content	Quality Management System
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire knowledge of how to apply quality management system processes important for fulfilling customers' requirements of project management processes and project outcomes in medium-sized, large-sized, or high-complex projects. ○The course focuses on quality required in project management, and the attendees learn entire quality management system including quality management system processes (e.g., quality planning, quality assurance, and quality control), quality management system tools, quality management system techniques, and quality management system outcomes. ○In addition to theories of quality management system, the attendees learn in workshops practical quality management system important for provision of high-level quality achieving customers' needs in projects with any degrees of complexity and difficulty.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management level 5)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop
Duration	Standard term: 2 days (classroom)
Learning Goal	Can provide a customer with outcomes satisfying required quality as a person responsible for a project by utilizing practical knowledge of quality management system.

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Skill Items	Knowledge Items
Project Quality Management	-Quality Planning Cost-benefit Analysis, Benchmarking, Design of Experiments, Cost of Quality(COQ), Additional Quality Planning Tools -QA (Perform Quality Assurance) Quality Planning Tools and Techniques, Quality Audits, Process Analysis, Quality Control Tools and Techniques QC (Perform Quality Control) Cause and Effect of Diagram, Control Charts, Flowcharting, Histogram, Pareto Chart, Run Chart, Scatter Diagram, Statistical Sampling, Inspection, Defect Repair Review

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Course Name / Content	Risk Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This course helps attendees acquire knowledge of how to apply risk management processes necessary to control uncertain events or conditions that might have positive or negative impacts on projects' objectives at any phases in medium-sized, large-sized, or high-complex projects. ○Explanations of entire risk management processes (e.g., identification of risks that might have serious impacts on project operations, quantitative assessment of risk exposure, measurement, creation of risk management plans incorporating, countermeasures against risks, and continuous actions based on each changing situation) are provided. The entire risk management processes include fundamental risk management processes (e.g., risk identification、quantification, creation of countermeasures, risk monitoring, and risk control), risk management tools (e.g., flowchart analysis, simulation, decision trees, and measures against contingency), and how to use the tools. ○The attendees review risk management theory in lectures, and learn practical risk management in workshops.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management level 5)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Workshop
Duration	Standard term: 3 days (classroom)
Learning Goal	Can control risks as a person responsible for a project by utilizing practical knowledge of risk management.

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Skill Items	Knowledge Items
Project Risk Management	-Risk Management Planning Planning Meetings and Analysis -Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Qualitative Risk Analysis Risk Probability and Impact Assessment, Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment -Quantitative Risk Analysis Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings

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Course Nam / Content	Financial Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This course helps attendees acquire knowledge of financial management processes and skills necessary for completing projects successfully in perspectives of budged, resources, and costs in medium-sized, large-sized, or high-complex projects. ○An explanation of financial management that is necessary for completing projects within budgets and that includes financial responsibilities, financial terminology, how to acquire financial data, selection and assessment of projects by utilizing financial analysis tools, and case studies of financial management in projects is provided. The attendees also learn how to utilize the financial data in project management. ○The attendees learn in lectures fundamental financial knowledge, financial management tools, and how to utilize the tools, and perform practical exercises in financial management in workshops. It is possible to provide training contents via e-learning type methods based on schedules or differences in levels of attendees' financial knowledge.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management level 5)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop, or E-learning
Duration	Standard term: 3 days (classroom) or 24 hours (e-learning 6 hours/day x 4 days)
Learning Goal	Can go through financial management processes as a person responsible for a project by utilizing practical knowledge of financial management.

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Skill Items	Knowledge Items
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management

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Course Name / Content	Procurement Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This course helps attendees acquire knowledge of how to procure products or human resources from outside based on projects' needs in medium-sized, large-sized, or high-complex projects. ○An explanation of a series of procurement management processes (e.g., planning development, procurement inquiry, contracts with procurement vendors, and progress management, change control, and contract closure) that include fundamental processes of procurement management, procurement management tools, and how to use them, is provided. The attendees also learn exception-handling techniques for procurement. ○The attendees learn in lectures procurement management theory, and practical knowledge of procurement management in workshops. It is also possible to provide a part of training contents (e.g., how to write Statement of work (SOW)) via e-learning type methods.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management level 5)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop
Duration	Standard term: 3 days (classroom)
Learning Goal	Can go through procurement processes as a person responsible for a project by utilizing practical knowledge of procurement management.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Scope Management	-Scope Planning Expert Judgment, Templates and Forms and Standards -Create WBS Work Breakdown Structure Templates Decomposition -Scope Control Change Control System, Variance Analysis, Replanning, Configuration Management System
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management
Project Human Resource Management	-Acquire Project Team Pre-Assignment, Negotiation, Acquisition, Virtual Teams
Project Communication Management	-Performance Reporting Information Presentation Tools, Performance Information gathering and Compilation, Status Review Meetings, Time Reporting Systems, Cost Reporting Systems

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Skill Items	Knowledge Items
Project Procurement Management	-Plan Purchases and Acquisitions Make-or-Buy Analysis, Expert Judgment, Contract Types -Plan Contracting Standard Forms, Expert Judgment -Request Seller Responses Bidder Conferences, Advertising, Develop Qualified Sellers List -Select Sellers Weighting System, Independent Estimates, Screening System, Contract Negotiation, Seller Rating Systems, Expert Judgment, Proposal Assessment Techniques -Contract Administration Contract Change Control System, Buyer-Conducted Performance Review, Inspections and Audits, Performance Reporting, Payment System, Claims Administration, Records Management System, Information Technology -Contract Closure Procurement Audits, Records Management System

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Course Name / Content	Contract Administration in Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This course helps attendees learn contract relevant knowledge and considerations on project management necessary for implementation of service contracts with customers. ○Explanations of general knowledge of service contracts, administration of contracts with customers, administration of contracts with business partners, and contract administration in projects are provided. ○This course premises to provide training contents via e-learning type methods, and also to ask questions (e.g., quizzes) in order for attendees to acquire contract administration skills properly is recommended.
Attendee	Those who have performed project management for medium-sized or large-sized projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management level 5)
Precondition	Have completed Practice of Project Management course group and Procurement Management course, or possess equivalent knowledge.
Training Method	E-learning
Duration	Standard term: 12 hours (e-learning 6 hours/day x 2 days)
Learning Goal	Can go through proper contract processes and manage a contract as a person responsible for a project by utilizing practical knowledge of contact administration.

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Skill Items	Knowledge Items
Project Communication Management	-Performance Reporting Information Presentation Tools, Performance Information gathering and Compilation, Status Review Meetings, Time Reporting Systems, Cost Reporting Systems
Project Procurement Management	-Select Sellers Weighting System, Independent Estimates, Screening System, Contract Negotiation, Seller Rating Systems, Expert Judgment, Proposal Assessment Techniques -Contract Administration Contract Change Control System, Buyer-Conducted Performance Review, Inspections and Audits, Performance Reporting, Payment System, Claims Administration, Records Management System, Information Technology -Contract Closure Procurement Audits, Records Management System

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Latest Technology Trends (1 course)

●Latest Technology Trends

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Course Name / Content	Latest Technology Trends
Training Course Level	☐Introductory Course ☐Basic Course ☐Advanced Course ■Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees learn the latest technology trends surrounding IT services changing from day to day and acquire knowledge of how to apply the latest technology trends to actual business. ○The attendees learn sizes and trends of IT markets in domestic and abroad IT markets, present and future IT, component technology trends of the following (platforms, system management infrastructure, databases, networks, distributed computing systems, and security), application technology trends, business model patent technology trends, next-generation e-business, and its future growth. ○Training contents are provided on given themes according to need, and the attendees select a theme to take part in a lecture for maintaining or improving their skills at regular intervals or when needed.
Attendee	Those who should keep up with their different kinds of technology knowledge as persons responsible for or members of projects (those who aim to acquire the knowledge of Project Management level 4, 5, or 6)
Precondition	Possess fundamental IT knowledge.
Training Method	Lecture
Duration	Standard term: 1 day (classroom)
Learning Goal	Can participate in a project such as system development, system operations, or system maintenance as a person responsible for the project by utilizing knowledge of the latest technology.

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Skill Items	Knowledge Items
Design and Development Management of IT Solutions	-Latest Technology Trends Understanding of Latest Hardware Technology Trends, Understanding of Latest Middleware Technology Trends, Understanding of Latest Platform Technology trends, Understanding of Latest Network Technology Trends, Understanding of Latest Database Technology Trends, Understanding of Latest Security, Technology Trends, Understanding of Latest System Management Technology Trends -Latest Trends in IT Market Trends Understanding of IT Market Scale and Trends Domestic and Abroad, Understanding and Utilization of Technology Trends Related to Application, Understanding and Utilization of Technology Trends Related to Business Model Patents, Understanding and Utilization of Next-generation E-business and Its Growth

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Practice of Project Management (1 course)

●Latest Project Management Trends

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Course Name / Content	Latest Project Management Trends
Training Course Level	☐Introductory Course ☐Basic Course ☐Advanced Course ■Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire knowledge of the latest project management trends to select the best techniques suited for customer's IT or business environment in order to perform high-quality project management continuously. ○The attendees study the latest news and topics in project management, especially in advanced technology areas. The attendees also study project management concept, the latest demand trends of top management of customers and the latest cases in project management. ○The attendees learn the training contents above about once every year via e-learning type methods.
Attendee	Those who need to apply the latest project management to actual projects as persons responsible for or members of the projects (those who aim to acquire the knowledge of Project Management level 4, 5, or 6)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	E-learning
Duration	Standard term: 3 hours (6 hours/day x 0.5 day)
Learning Goal	Can go through all project processes successfully as a person responsible for a project by utilizing knowledge of the latest project management.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Direct and Manage Project Execution Project Management Methodology, Project Management Information System (PMIS) -Monitor and Control Project Work Project Management Methodology, Project Management Information System (PMIS), Earned Value Management, Expert Judgment Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Close Project Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Scope Management	-Scope Planning Expert Judgment, Templates and Forms and Standards -Scope Definition Product Analysis, Alternatives Identification, Expert Judgment, Stakeholder Analysis Create WBS Work Breakdown Structure Templates Decomposition Scope Verification Inspection -Scope Control Change Control System, Variance Analysis, Replanning, Configuration Management System

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Skill Items	Knowledge Items
Project Time Management	-Activity Definition Decomposition, Templates, Rolling Wave Planning, Expert Judgment, Planning Component -Activity Sequencing Precedence Diagramming Method (PDM), Arrow Diagramming Method (ADM), Schedule Network Templates, Dependency Determination, Applying Leads and Lags -Activity Resource Estimating Expert Judgment, Alternatives Analysis, Published Estimating Data, Project Management Software, Bottom-up Estimating -Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis -Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management

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Skill Items	Knowledge Items
Project Quality Management	-Quality Planning Cost-benefit Analysis, Benchmarking, Design of Experiments, Cost of Quality(COQ), Additional Quality Planning Tools -QA (Perform Quality Assurance) Quality Planning Tools and Techniques, Quality Audits, Process Analysis, Quality Control Tools and Techniques -QC (Perform Quality Control) Cause and Effect of Diagram, Control Charts, Flowcharting, Histogram, Pareto Chart, Run Chart, Scatter Diagram, Statistical Sampling, Inspection, Defect Repair Review
Project Human Resource Management	-Human Resource Planning Organization Charts and Position Descriptions, Networking, Organizational Theory Acquire Project Team Pre-Assignment, Negotiation, Acquisition, Virtual Teams -Develop Project Team General Management Skills, Training, Team-Building Activities, Ground Rules, Co-Location, Recognition and Rewards -Manage Project Team Observation and Conversation, Project Performance Appraisals, Conflict Management, Issue Log
Project Communication Management	-Communication Planning Communications Requirements Analysis, Communications Technology -Information Distribution Communications Skills, Information Gathering and Retrieval Systems, Information Distribution Methods, Lessons Learned Process -Performance Reporting Information Presentation Tools, Performance Information gathering and Compilation, Status Review Meetings, Time Reporting Systems, Cost Reporting Systems -Manage Stakeholders Communications Methods, Issue Logs

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Skill Items	Knowledge Items
Project Risk Management	-Risk Management Planning Planning Meetings and Analysis -Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Qualitative Risk Analysis Risk Probability and Impact Assessment, Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment -Quantitative Risk Analysis Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings

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Skill Items	Knowledge Items
Project Procurement Management	-Plan Purchases and Acquisitions Make-or-Buy Analysis, Expert Judgment, Contract Types -Plan Contracting Standard Forms, Expert Judgment Request Seller Responses Bidder Conferences, Advertising, Develop Qualified Sellers List -Select Sellers Weighting System, Independent Estimates, Screening System, Contract Negotiation, Seller Rating Systems, Expert Judgment, Proposal Assessment Techniques -Contract Administration Contract Change Control System, Buyer-Conducted Performance Review, Inspections and Audits, Performance Reporting, Payment System, Claims Administration, Records Management System, Information Technology -Contract Closure Procurement Audits, Records Management System

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Latest Business Trends (1 courses)

●Latest Business Trends

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Course Nam / Content	Latest Business Trends
Training Course Level	☐Introductory Course ☐Basic Course ☐Advanced Course ■Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire knowledge of the latest business trends changing from day to day. ○Training contents are provided on given themes (e.g., management issues of major industries, the latest trends of the major industries, topics, IT market trends in a domestic country and abroad, and major technology trends) according to need, and the attendees select a theme to take part in a lecture (or e-learning type methods) for maintaining or improving their skills at regular intervals or when needed.
Attendee	Those who should keep up with their business trend knowledge in order to understand business environment of customers relevant to projects as persons responsible for projects (those who aim to acquire the knowledge of Project Management level 4, 5, or 6)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Lecture or E-learning
Duration	Standard term: 0.5 day (classroom) or Standard term: 3 hours (e-learning 6 hours/day x 0.5 day)
Learning Goal	Can understand business issues of a customer and complete a project as a person responsible for the project by utilizing knowledge of the latest business trends.

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Skill Items	Knowledge Items
Design and Development Management of IT Solutions	-Latest Trends in IT Market Trends Understanding of IT Market Scale and Trends Domestic and Abroad, Understanding and Utilization of Technology Trends Related to Application, Understanding and Utilization of Technology Trends Related to Business Model Patents, Understanding and Utilization of Next-generation E-business and Its Future Growth

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Industry Application Trends (1 course)

●Industry Application Trends

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Course Name / Content	Industry Application Trends
Training Course Level	☐Introductory Course ☐Basic Course ☐Advanced Course ■Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees learn the latest trends in each industry and acquire knowledge of applications and solutions in a spotlight currently in order to keep updating knowledge of industry applications changing from day to day. ○Training contents are provided on a given theme of each industry, application, or solution, and the attendees select a theme and take part in a lecture for maintaining or improving their skills at regular intervals or when needed. ○To provide lectures via e-learning type methods is possible; however, to give demonstrations of how applications work at lectures is recommended.
Attendee	Those who should keep up with the latest knowledge including industries that the professionals are working for currently or in the future and application packages utilized in the industries as persons responsible for projects (those who aim to acquire the knowledge of Project Management level 4, 5, or 6)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Lecture or E-learning
Duration	Standard term: 2 days (classroom) or Standard term: 12 hours (e-learning 6 hours/day x 2 days)
Learning Goal	Can participate in a project such as system development, system operations, or system maintenance as a person responsible for the projects by utilizing industry application knowledge.

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Skill Items	Knowledge Items
Analysis of Business Operations	-Industry Knowledge Utilization of Industry Common Applications Knowledge, Utilization of industry Specific Applications Knowledge, Understanding of Industry Business Trend, Technology Trend and Competition Status, Understanding and Utilization of Industry Terms and Relevant Regulations, Understanding and Utilization of Industry Specific Business Environments, Understanding and Utilization of Industry Specific Business Practice, Understanding and Utilization of Industry Specific Business Operations

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Community Activities (1 course)

●Community Activities

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Course Name / Content	Community Activities
Training Course Level	☐Introductory Course ☐Basic Course ☐Advanced Course ■Special Course
Training Area (Common or Specialty Field)	■Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Community activities, unlike trainings, give IT professionals opportunities to learn from one other and contribute to development of subordinates. Community activities are all sorts of activities within or outside companies regardless of any types of organizations. Community activities outside companies are activities in academic conferences or various associations (including voluntary ones), and community activities within companies are, for instance, activities by those certified by certification system in their companies. Basically, a community is made up of one job category. ○Individuals with high-level skills are considered out of learning through trainings, and they are expected to improve their skills by exchanging information and discussing with other individuals in community activities. ○The individuals contribute to development of subordinates through writing a paper or giving lectures based on their high-level knowledge and skills. Especially in community activities within companies, they lead activities for design, institution, and implementation of personnel system, education system, and training system. They make contribution as IT professionals in business fields to pursuit of human resource development strategies related to business strategies as well.
Attendee	- -
Precondition	- -
Training Method	- -
Duration	- -
Learning Goal	- -

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Project Management
Training Course Description
<Specific to Each Specialty Field (Selective Courses)>

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Project Management Methodology (System Development) (1 course)

[ ] is a corresponding specialty field

●Project Management Methodology [System Development]

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Course Name / Content	Project Management Methodology (System Development)
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ■System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: Attendees acquire methodology knowledge of information system development important for project management of system development, application development, and system integration. ○The attendees learn fundamental theory , tools, and techniques of software engineering utilized in information system development projects, the fundamental theory, tools, and techniques include models of software development process (e.g., waterfall model, spiral model,, and software prototyping), POA (Process Oriented Approach), DOA (Date Oriented Approach, or Data-driven Approach), development methodologies (e.g., Object Oriented Development), programming languages, development tools, and development techniques. ○In the first half, the attendees learn fundamental knowledge of information system development methodology via e-learning type methods. In the second half, the attendees learn how to apply the knowledge to actual projects in lectures and workshops in case methods.
Attendee	Those who have participated in projects (e.g., system development) as members of the projects (those who aim to acquire the knowledge of Project Management (specialty field: System Development) level 4)
Precondition	Have completed System Design course group, System Development course group, System Operations and Maintenance course group, and Project Management Fundamentals course group, or possess equivalent knowledge.
Training Method	E-learning, Lecture, Workshop
Duration	[First Half] Standard term: 18 hours (e-learning 6 hours/day x 3 days) [Second Half] Standard term: 2 days (classroom)
Learning Goal	Can complete a project by leading design and development management of IT solutions to as a person responsible for the project by utilizing software engineering techniques and deciding system development policy.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Direct and Manage Project Execution Project Management Methodology, Project Management Information System (PMIS) -Monitor and Control Project Work Project Management Methodology, Project Management Information System (PMIS), Earned Value Management, Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Close Project Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Design and Development Management of IT Solutions	-Software Engineering IT Standardization Techniques, Development Techniques, Development Support Tools and Techniques, Programming Techniques, Test Techniques, Reuse Techniques, Security and Privacy, Security Tools and Techniques, External Design, Internal Design, Object Oriented Development, Debug Techniques -Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization

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DOA Structured Techniques (1 course)

[ ] is a corresponding specialty field

●DOA Structured Techniques [System Development]

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Course Name / Content	DOA Structured Techniques
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ■System Development ☐IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This course helps attendees acquire knowledge of DOA structured techniques necessary for system development, application development, and system integration design. ○Explanation of DOA indispensable for requirements definition and design of application development, and techniques utilized in DOA are provided. ○In the first half attendees learn fundamental knowledge of information system development methodology via e-learning type methods, and how to apply the knowledge to actual projects in lectures and workshop in the second half.
Attendee	Those who have participated in projects (e.g., system development) as persons responsible for the projects (those who aim to acquire the knowledge of Project Management (specialty field: System Development) level 5)
Precondition	Have completed System Design course group, System Development course group, System Operations and Maintenance course group, and Project Management Fundamentals course group, or possess equivalent knowledge.
Training Method	E-learning
Duration	[First Half] Standard term: 12 hours (e-learning 6 hours/day x 2 days) [Second Half] Standard term: 2 days (classroom)
Learning Goal	Can complete a project by leading requirements definition and design in system development phases as a person responsible for the project by utilizing DOA structured techniques.

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Skill Items	Knowledge Items
Design and Development Management of IT Solutions	-Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization

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Project Management Methodology (Network Services) (1 course)

[ ] is a corresponding specialty field

●Project Management Methodology (Network Services) [Network Service]

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Course Name / Content	Project Management Methodology (Network Services)
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ☐System Development ☐IT Outsourcing ■Network Service ☐Software Product Development
Outline	Aim: Attendees acquire knowledge of network service methodology important for project management of network services. ○The attendees learn major technology and functions of network systems, major business operations processes and methods in each phase of design, construction, and operations of network systems, characteristics of contract patterns (support type contract and service contract) of network service projects, and considerations on the contract patterns. ○The attendees learn how to apply the knowledge above to actual projects and considerations on each item by reviewing application examples in lectures and workshops.
Attendee	Those who have participated in projects (e.g., system development) as members of projects (those who aim to acquire the knowledge of Project Management (specialty field: Network Service) level 4)
Precondition	Have completed System Design course group, System Development course group, System Operations and Maintenance course group, and Project Management Fundamentals course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop
Duration	Standard term: 2 days (classroom)
Learning Goal	Can complete a network project by leading design, construction, and operations management of communications environment as a person responsible for the project by utilizing technical knowledge and methodology of network systems.

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Skill Items	Knowledge Items
Project Integration Management	Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Direct and Manage Project Execution Project Management Methodology, Project Management Information System (PMIS) -Monitor and Control Project Work Project Management Methodology, Project Management Information System (PMIS), Earned Value Management, Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Close Project Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Communication Environment Design and Operation Management	-Understanding of Communications Industry Trends -Utilization and Practice of Network Equipment Related Knowledge -Utilization and Practice of Network Management Technology -Utilization and Practice of Network Protocol Related Knowledge -Understanding and Utilization of Network Technology Protocol and Transmission Control, Encoding and Transmission, Network Related Regulations, Network Security, Communication Equipment, Internet, Network Software, Line-related Technology (ATM, Frame Relay, LAN, WAN, etc), TCP/IP -Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization -Network System Implementation Technology

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Skill Items	Knowledge Items
	Network Protocol, Telecommunications Service, Network Equipment and Device, Network Service, Intranet and Extranet -Operation, Maintenance, and Management of Network Systems User Support, Maintenance and Update Policies and Planning, Maintenance and Update Implementation, Backup and Data Restore, Network Systems Composition Management, Network System Monitoring, System Performance Analysis, Analysis and Response of Compromise, Failure Analysis -Network Systems Assessment Utilization and Practice of Monitoring Techniques, Traffic Measurement and Analysis, Utilization and Practice of Simulation Techniques, Utilization and Practice of Performance Analysis Techniques -Network Modeling Techniques Layer Definition, Protocol Definition -Network Standards Understanding and Usage of Network Standards -Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method -Utilization and Practice of Technology Verification Methods Simulation, Modeling

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Examples of Network Project Management (1 course)

[ ] is a corresponding specialty field

●Examples of Network Project Management [Network Service]

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Course Name / Content	Examples of Network Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ☐System Development ☐IT Outsourcing ■Network Service ☐Software Product Development
Outline	Aim: This course helps attendees learn points on how to complete network projects successfully through reviewing examples of project management of network services. ○Explanations of project success factors and considerations on specific to network projects by using examples of build and management of network projects are provided.
Attendee	Those who have participated in network construction projects as person responsible for the projects (those who aim to acquire the knowledge of Project Management (specialty field: Network Service) level 5)
Precondition	Have completed Network Service Methodology course group, or possess equivalent knowledge.
Training Method	E-learning
Duration	Standard term: 3 hours (e-learning 6 hours/day x 0.5 day)
Learning Goal	Can complete a network project as a person responsible for the project by utilizing practical knowledge of network service construction.

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Skill Items	Knowledge Items
Communication Environment Design and Operation Management	-Understanding of Communications Industry Trends -Utilization and Practice of Network Management Technology -Operation, Maintenance, and Management of Network Systems User Support, Maintenance and Update Policies and Planning, Maintenance and Up date Implementation, Backup and Data Restore, Network Systems Composition Management, Network System Monitoring, System Performance Analysis, Analysis and Response of Compromise, Failure Analysis -Network System Assessment Utilization and Practice of Monitoring Techniques, Traffic Measurement and Analysis, Utilization and Practice of Simulation, Techniques, Utilization and Practice of Performance Analysis Techniques -Network Standards Understanding and Usage of Network Standards -Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method

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Project Management Methodology (Software Product Development) (1 course)

[ ] is a corresponding specialty field

●Project Management Methodology (Software Product Development)

[Software Development]

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Course Name / Content	Project Management Methodology (Software Product Development)
Training Course Level	☐Introductory Course ■Basic Course ☐Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ■Software Product Development
Outline	Aim: Attendees acquire knowledge of software product development methodology important for project management of software product development. ○The attendees learn how to apply IPD (Integrated Product Development) methodology to a series of life cycle of software product development (e.g., development planning, requirements definition, design, development, testing, and installation). The IPD methodology includes management process, tools, techniques, intellectual property, patents, and software product relevant knowledge. ○The attendees learn in lectures a project management theory utilizing IPD methods, and the attendees learn in workshops how to apply the project management theory and review examples of the application methods.
Attendee	Those who have participated in projects as members of the projects of software product design and development teams (those who aim to acquire the knowledge of Project Management (specialty field: Software Development) level 4)
Precondition	Have completed System Design course group, System Development course group, System Operations and Maintenance course group, and Project Management Fundamentals course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop
Duration	Standard term: 5 days (classroom)
Learning Goal	Can complete a project by leading design and development management of new software and existing software as a person responsible for the project by utilizing software product development methodology.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Direct and Manage Project Execution Project Management Methodology, Project Management Information System (PMIS) -Monitor and Control Project Work Project Management Methodology, Project Management Information System (PMIS), Earned Value Management, Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Close Project Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Development of New Software and Improvement of Existing Software	-Utilization and Practice of Software Development Techniques Customer Environment Management -Utilization and Practice of Software Product and Package Software Related Knowledge -Software Engineering IT Standardization Techniques, Development Techniques, Development Support Tools and Techniques, Programming Techniques, Test Techniques, Reuse Techniques, Security and Privacy, Security Tools and Techniques, External Design, Internal Design, Object Oriented Development, Debug Techniques -Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization -Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method

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Skill Items	Knowledge Items
	-Management and Utilization of Knowledge Databases Creation from Knowledge (Added Value, Structuring, Sharing), Utilization of Knowledge, Maintenance and Management of Knowledge, Understanding of Effects and Improvement Implementation, Business Model Patents

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Software Product Development Project Management (1 course)

[ ] is a corresponding specialty field

●Software Product Development Project Management

[Software Product Development]

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Course Name / Content	Software Product Development Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ■Software Product Development
Outline	Aim: Attendees acquire practical knowledge of software product development methodology important for project management of software product development. ○The attendees learn activities for maintaining consistency between software product development processes (e.g., development planning, requirements definition, design, development, testing, and installation) and software products by utilizing IPD knowledge (e.g., a management process for software product development, tools, and techniques). The attendees also understand roles and authority of project management in IPD processes and acquire capabilities to take leadership in solving of pending issues and problems. ○The attendees learn in lectures a project management theory in IPD methods, and the attendees learn how to apply and study examples in workshops.
Attendee	Those who have participated in projects as persons responsible for software product design and development (those who aim to acquire the knowledge of Project Management (specialty field: Software Product Development) level 5)
Precondition	Have completed Project Management Methodology (Software Product Development) course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop
Duration	Standard term: 5 days (classroom)
Learning Goal	Can complete a project by leading design and development management of new software and existing software as a person responsible for the project by utilizing software product development methodology.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Scope Management	-Scope Planning Expert Judgment, Templates and Forms and Standards -Scope Definition Product Analysis, Alternatives Identification, Expert Judgment, Stakeholder Analysis -Create WBS Work Breakdown Structure Templates Decomposition -Scope Verification Inspection -Scope Control Change Control System, Variance Analysis, Replanning, Configuration Management System
Project Time Management	-Activity Definition Decomposition, Templates, Rolling Wave Planning, Expert Judgment, Planning Component -Activity Resource Estimating Expert Judgment, Alternatives Analysis, Published Estimating Data, Project Management Software, Bottom-up Estimating -Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis -Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts

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Skill Items	Knowledge Items
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management
Project Risk Management	-Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Quantitative Risk Analysis Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings
Development of New Software and Improvement of Existing Software	-Utilization and Practice of Software Development Techniques -Customer Environment Management -Utilization and Practice of Software Product and Package Software Related Knowledge -Software Engineering IT Standardization Techniques, Development Techniques, Development Support Tools and Techniques, Programming Techniques, Test Techniques, Reuse Techniques, Security and Privacy, Security Tools and Techniques, External Design, Internal Design, Object Oriented Development, Programming Techniques, Debug Techniques -Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization

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Skill Items	Knowledge Items
	-Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method -Management and Utilization of Knowledge Databases Creation from Knowledge (Added Value, Structuring, Sharing), Utilization of Knowledge, Maintenance and Management of Knowledge, Understanding of Effects and Improvement Implementation, Business Model Patents

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System Operations Management Methodology for Outsourcing Project Management (1 course)

[ ] is a corresponding specialty field

●System Operations Management Methodology for Outsourcing Project Management [IT Outsourcing]

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Course Name / Content	System Operations Management Methodology for Outsourcing Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ☐System Development ☐IT Outsourcing ☐Network Service ■Software Product Development
Outline	Aim: This course helps attendees acquire knowledge of information system's operations management methodology necessary for outsourcing project management. ○This course covers knowledge domain of methodology of system operations management. Explanations of all processes of system operations management (e.g., information system planning and management, system development, service level management resource management, asset management, operations management, and report management) are provided. ○The attendees learn mainly how to apply methodology of system operations management to actual business scenes and it example cases in workshops.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects as persons responsible for the project (those who aim to acquire the knowledge of Project Management (specialty field: IT Outsourcing) level 6)
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop
Duration	Standard term: 3 days (classroom)
Learning Goal	Can complete an outsourcing project as a person responsible for the project by utilizing methodology of information system management.

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Skill Items	Knowledge Items
Information System Management	-System Management System Selection of Organizations and Roles, Workflow Formulation, Formulation of Operation Standards, Establishment of Management System -Relationship Management with User Divisions Understanding for Demands of Uses and Management -Planning of Information Systems Formulation of Systemization Strategy, Formulation of Systemization Plan -Systems Development Formulation and Implementation of System Development Plan -Application for Production System Formulation and Implementation of System Migration Plan -Information Service Support Quality Control -Information Service Offering System Operation -Information Resources Management Formulation and Management of Information System Asset Plan -Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization -Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method -Latest Technology Trends Understanding of Latest Hardware Technology Trends, Understanding of Latest Middleware Technology Trends, Understanding of Latest Platform Technology trends, Understanding of Latest Network Technology Trends, Understanding of Latest Database Technology Trends, Understanding of Latest Security, Technology Trends, Understanding of Latest System Management Technology Trends

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Outsourcing Business Project Management (3 courses)

[ ] is a corresponding specialty field

- Overview of Outsourcing Project Management [IT Outsourcing]
- Practice of Outsourcing Project Management [IT Outsourcing]
- Overviews of Accounting and Business Management for Outsourcing Project Management [IT Outsourcing]

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Course Name / Content	Overview of Outsourcing Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ☐System Development ■IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This course helps attendees learn overviews and characteristics of project management in outsourcing business in order to manage outsourcing projects as specialists. ○An explanation of business contents necessary for completing outsourcing projects successfully is provided. The business contents include an overview and contract patterns of outsourcing business, roles and responsibilities of outsourcing project management professionals, management processes of outsourcing projects, and business management items (e.g., SLA (Service Level Agreement), resource management, asset management, operations management, and report management). ○The attendees learn broad range of elements of outsourcing project management comprehensively in lectures and workshops.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects and have results of the projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management (specialty field: IT Outsourcing) level 6) To have participated in outsourcing projects as project members is preferable.
Precondition	Have completed Practice of Project Management course group, or possess equivalent knowledge.
Training Method	Lecture, Workshop
Duration	Standard term: 2 days (classroom)
Learning Goal	Can understand an overview of outsourcing business and utilize its fundamental knowledge. Can complete a crucial and strategic outsourcing project for a client as a person responsible for the project.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Scope Management	-Scope Planning Expert Judgment, Templates and Forms and Standards Scope Definition Product Analysis, Alternatives Identification, Expert Judgment, Stakeholder Analysis -Create WBS Work Breakdown Structure Templates Decomposition -Scope Verification Inspection -Scope Control Change Control System, Variance Analysis, Replanning, Configuration Management System

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Skill Items	Knowledge Items
Project Time Management	-Activity Definition Decomposition, Templates, Rolling Wave Planning, Expert Judgment, Planning Component -Activity Sequencing Precedence Diagramming Method (PDM), Arrow Diagramming Method (ADM), Schedule Network Templates, Dependency Determination, Applying Leads and Lags -Activity Resource Estimating Expert Judgment, Alternatives Analysis, Published Estimating Data, Project Management Software, Bottom-up Estimating -Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis -Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management

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Skill Items	Knowledge Items
Project Quality Management	-Quality Planning Cost-benefit Analysis, Benchmarking, Design of Experiments, Cost of Quality(COQ), Additional Quality Planning Tools -QA (Perform Quality Assurance) Quality Planning Tools and Techniques, Quality Audits, Process Analysis, Quality Control Tools and Techniques -QC (Perform Quality Control) Cause and Effect of Diagram, Control Charts, Flowcharting, Histogram, Pareto Chart, Run Chart, Scatter Diagram, Statistical Sampling, Inspection, Defect Repair Review
Project Human Resource Management	-Human Resource Planning Organization Charts and Position Descriptions, Networking, Organizational Theory -Acquire Project Team Pre-Assignment, Negotiation, Acquisition, Virtual Teams Develop Project Team General Management Skills, Training, Team-Building Activities, Ground Rules, Co-Location, Recognition and Rewards -Manage Project Team Observation and Conversation, Project Performance Appraisals, Conflict Management, Issue Log
Project Communication Management	-Communication Planning Communications Requirements Analysis, Communications Technology -Information Distribution Communications Skills, Information Gathering and Retrieval Systems, Information Distribution Methods, Lessons Learned Process -Performance Reporting Information Presentation Tools, Performance Information gathering and Compilation, Status Review Meetings, Time Reporting Systems, Cost Reporting Systems -Manage Stakeholders Communications Methods, Issue Logs

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Skill Items	Knowledge Items
Project Risk Management	-Risk Management Planning Planning Meetings and Analysis -Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Qualitative Risk Analysis Risk Probability and Impact Assessment, Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment Quantitative Risk Analysis Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings
Project Procurement Management	-Plan Purchases and Acquisitions Make-or-Buy Analysis, Expert Judgment, Contract Types -Plan Contracting Standard Forms, Expert Judgment -Request Seller Responses Bidder Conferences, Advertising, Develop Qualified Sellers List

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Skill Items	Knowledge Items
Information System Management	-System Management System Selection of Organizations and Roles, Workflow Formulation, Formulation of Operation Standards, Establishment of Management System -Relationship Management with User Divisions Understanding for Demands of Uses and Management -Planning of Information Systems Formulation of Systemization Strategy, Formulation of Systemization Plan Systems Development Formulation and Implementation of System Development Plan -Application for Production System Formulation and Implementation of System Migration Plan -Information Service Support Quality Control -Information Service Offering System Operation -Information Resources Management Formulation and Management of Information System Asset Plan -Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization -Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method -Latest Technology Trends Understanding of Latest Hardware Technology Trends, Understanding of Latest Middleware Technology Trends, Understanding of Latest Platform Technology trends, Understanding of Latest Network Technology Trends, Understanding of Latest Database Technology Trends, Understanding of Latest Security, Technology Trends, Understanding of Latest System Management Technology Trends

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Course Name / Content	Practice of Outsourcing Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ☐System Development ■IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This is the subsequent course of Overview of Outsourcing Project Management course, and helps attendees acquire particularly important knowledge for carrying through outsourcing projects. ○Explanations of the following are provided. Growing steps of outsourcing business and partnership, PMP (Project Management Profession) certification examinations, contracts, cost management, examples of SLA, considerations found from case studies of operations improvements, customer satisfaction management, outsourcing of application development management, and principles and unique techniques of program management that is in the spotlight recent years. ○The attendees learn theory of outsourcing project management in lectures, and practical outsourcing project management focusing on applying method of the theory to actual business scenes and reviewing application examples in workshops.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management (specialty field: IT Outsourcing) level 6)
Precondition	Have completed Overview of Outsourcing Project Management course.
Training Method	Lecture, Workshop
Duration	Standard term: 5 days (classroom)
Learning Goal	Can complete a crucial and strategic outsourcing project for a client as a person responsible for the project by utilizing practical knowledge of outsourcing business.

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Skill Items	Knowledge Items
Project Integration Management	-Develop Project Charter Project Selection Methods, Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Preliminary Project Scope Statement Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Develop Project Management Plan Project Management Methodology, Project Management Information System (PMIS), Expert Judgment -Integrated Change Control Project Management Methodology, Project Management Information System (PMIS), Expert Judgment
Project Scope Management	-Scope Planning Expert Judgment, Templates and Forms and Standards -Scope Definition Product Analysis, Alternatives Identification, Expert Judgment, Stakeholder Analysis -Create WBS Work Breakdown Structure Templates Decomposition -Scope Verification Inspection -Scope Control Change Control System, Variance Analysis, Replanning, Configuration Management System

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Skill Items	Knowledge Items
Project Time Management	-Activity Definition Decomposition, Templates, Rolling Wave Planning, Expert Judgment, Planning Component Activity Sequencing Precedence Diagramming Method (PDM), Arrow Diagramming Method (ADM), Schedule Network Templates, Dependency Determination, Applying Leads and Lags -Activity Resource Estimating Expert Judgment, Alternatives Analysis, Published Estimating Data, Project Management Software, Bottom-up Estimating -Activity Duration Estimating Expert Judgment, Analogous Estimating, Parametric Estimating, Three-point Estimates, Reserve Analysis -Schedule Development Schedule Network Analysis, Critical Path Method, Schedule Compression, What-if Scenario Analysis, Resource Leveling, Critical Chain Method, Project Management Software, Applying Calendars, Adjusting Leads and Lags, Schedule Model -Schedule Control Progress Reporting, Schedule Change Control System, Performance Measurement, Project Management Software, Variance Analysis, Schedule Comparison Bar Charts
Project Cost Management	-Cost Estimating Analogous Estimating, Determine Resource Cost Rates, Bottom-up Estimating, Parametric Estimating, Project Management Software, Vendor Bid Analysis, Reserve Analysis, Cost of Quality -Cost Budgeting Cost Aggregation, Reserve Analysis, Parametric Estimating, Funding Limit Reconciliation -Cost Control Cost Change Control System, Performance Measurement Analysis, Forecasting, Project Performance Reviews, Project Management Software, Variance Management

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Skill Items	Knowledge Items
Project Quality Management	Quality Planning Cost-benefit Analysis, Benchmarking, Design of Experiments, Cost of Quality(COQ), Additional Quality Planning Tools -QA (Perform Quality Assurance) Quality Planning Tools and Techniques, Quality Audits, Process Analysis, Quality Control Tools and Techniques -QC (Perform Quality Control) Cause and Effect of Diagram, Control Charts, Flowcharting, Histogram, Pareto Chart, Run Chart, Scatter Diagram, Statistical Sampling, Inspection, Defect Repair Review
Project Human Resource Management	-Human Resource Planning Organization Charts and Position Descriptions, Networking, Organizational Theory -Acquire Project Team Pre-Assignment, Negotiation, Acquisition, Virtual Teams -Develop Project Team General Management Skills, Training, Team-Building Activities, Ground Rules, Co-Location, Recognition and Rewards -Manage Project Team Observation and Conversation, Project Performance Appraisals, Conflict Management, Issue Log
Project Communication Management	-Communication Planning Communications Requirements Analysis, Communications Technology -Information Distribution Communications Skills, Information Gathering and Retrieval Systems, Information Distribution Methods, Lessons Learned Process -Performance Reporting Information Presentation Tools, Performance Information gathering and Compilation, Status Review Meetings, Time Reporting Systems, Cost Reporting Systems -Manage Stakeholders Communications Methods, Issue Logs

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Skill Items	Knowledge Items
Project Risk Management	-Risk Management Planning Planning Meetings and Analysis -Risk Identification Documentation Reviews, Information Gathering Techniques, Checklist Analysis, Assumptions Analysis, Diagramming Techniques -Qualitative Risk Analysis Risk Probability and Impact Assessment, Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment -Quantitative Risk Analysis)Data Gathering and Representation Techniques, Quantitative Risk Analysis and Modeling Techniques -Risk Response Planning Strategies for Negative Risks or Threats, Strategies for Positive Risks or Opportunities, Strategy for Both Threats and Opportunities, Contingent Response Strategy -Risk Monitoring and Control Risk Reassessment, Risk Audits, Variance and Trend Analysis, Technical Performance Measurement, Reserve Analysis, Status Meetings
Project Procurement Management	-Plan Purchases and Acquisitions Make-or-Buy Analysis, Expert Judgment, Contract Types Plan Contracting Standard Forms, Expert Judgment -Request Seller Responses Bidder Conferences, Advertising, Develop Qualified Sellers List

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Skill Items	Knowledge Items
Information System Management	-System Management System Selection of Organizations and Roles, Workflow Formulation, Formulation of Operation Standards, Establishment of Management System -Relationship Management with User Divisions Understanding for Demands of Uses and Management -Planning of Information Systems Formulation of Systemization Strategy, Formulation of Systemization Plan -Systems Development Formulation and Implementation of System Development Plan -Application for Production System Formulation and Implementation of System Migration Plan Information Service Support Quality Control -Information Service Offering System Operation -Information Resources Management Formulation and Management of Information System Asset Plan -Requirement Definition Techniques Existing Operating Analysis, Understanding of New Operating Requirements, Definition of Operating Requirements, Analysis of Existing IT Environment, Understanding of New Technical Requirements, Definition of Technical Requirements, Utilization and Implementation of Interview Techniques, Creation of Requirements Definition, Needs Analysis and Prioritization -Technological Problem Solving Methods Utilization and Practice of Technological Problem Solving Method -Latest Technology Trends Understanding of Latest Hardware Technology Trends, Understanding of Latest Middleware Technology Trends, Understanding of Latest Platform Technology trends, Understanding of Latest Network Technology Trends, Understanding of Latest Database Technology Trends, Understanding of Latest Security, Technology Trends, Understanding of Latest System Management Technology Trends

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Course Name / Content	Overviews of Accounting and Business Management for Outsourcing Project Management
Training Course Level	☐Introductory Course ☐Basic Course ■Advanced Course ☐Special Course
Training Area (Common or Specialty Field)	☐Common to Project Management ☐System Development ■IT Outsourcing ☐Network Service ☐Software Product Development
Outline	Aim: This course helps attendees deepen knowledge of corporate accounting and business management necessary for carrying through and operating outsourcing projects. ○Explanations of the following are provided to understand paradigm shift in corporate accounting due to accounting Big Bang. -Corporate accounting (e.g., current cost accounting, consolidated accounting, cash flow accounting, pension accounting, tax effect accounting, and R&D cost and software accounting) -Corporate management techniques (e.g., cash flow management, group management, BPR (Business Process Reengineering), ABC and ABM (Activity Bases Costing and Activity Based Management), human resource management, and group management systems) ○The attendees learn via e-learning type methods knowledge of accounting system and business management necessary for understanding problems facing management on customers' sides.
Attendee	Those who have performed project management for medium-sized, large-sized, or complex projects as persons responsible for the projects (those who aim to acquire the knowledge of Project Management (specialty field: IT Outsourcing) level 6)
Precondition	Have completed Overview of Outsourcing Project Management course.
Training Method	E-learning
Duration	Standard term: 12 hours (e-learning 6 hours/day x 2 days)
Learning Goal	Can complete an outsourcing project effectively as a person responsible for the project based on understanding of roles and effect of an outsourcing project in business management.

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Skill Items	Knowledge Items
Information System Management	-Corporate Accounting Current Cost Accounting, Consolidated Accounting, Cash Flow Accounting, Pension Accounting, Tax Effect Accounting, R&D Cost and Software Accounting -Corporate Management Cash flow Management, Group Management and BPR (Business Process Reengineering), ABC (Activity Based Costing), ABM (Activity Based Management), Human Resource Management, Group Management System

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