Postgraduate Diploma in Information Technology (IT/IS Project Management)
IT002

1.   Introduction

This programme is designed for IT professionals and IT project owners who would like to advance their career to the management level. The latest technical and project management skills including planning, design, auditing, budgeting, quality control and social medial application of IT projects will be covered.

The programme also equips graduates the necessary knowledge and skills in pursuing several industry-wide recognized professional qualifications including:

- Project Management Professional (by Project Management Institute PMI)
- Agile Certified Practitioner (by Project Management Institute PMI)
- Professional in Business Analysis (by Project Management Institute PMI)
- Certified Information Systems Auditor (CISA) (by ISACA)

2.   Programme Structure

The programme consists of 9 modules, each of which requires 21-30 contact hours, totaling 225 hours. Instruction is conducted on a lecture/workshop basis. Students are required to complete all the following modules:

PM001   Project Management Foundation – Scientific Aspects (with PMI)

PM002   Project Procurement Management (with PMI)

PM003   Project Management Foundation - Behavioral Aspects (with PMI)

PM004   IT Governance and Regulatory Compliance

PM005   Agile Project Management

PM006   Information System Audit

PM007   Business Analysis Essentials

PM008   Digital Social Media for Business

PM009   Retail Technology Management

3.   Entry Requirements

i.   A degree in IT-related (or non-IT) subjects with at least 2 years' experience (3 years for non-IT) in project development or management, or

ii.   Professional membership status in a professional IT organisation, or

iii.   Professional membership status in a professional IT industry organisation, and

iv.   Proficiency in English as shown by:

   a. HKALE Use of English at Grade E or above; OR

   b. HKDSE Examination English Language at Level 3 or above; OR

   c. an overall band of 6.0 with no subtest lower than 5.5 in the IELTS; OR

   d. a score of 550 in the paper-based TOEFL, or a score of 213 in the

      computer-based TOEFL, or a score of 80 in theinternet-based TOEFL; OR

   e. equivalent qualifications

4.   Graduation

The Postgraduate Diploma in Information Technology (IT/IS Project Management) is conferred upon students who have successfully

- passed both the continuous assessment and written examination of each module; AND
- achieved at least 75% attendance of lectures for each module.

5.   Professional Recognition

In addition to the academic award, this programme will prepare graduates to pursue the following professional certifications including:

1. If students successfully complete and pass the examination of the three modules collaborated with PMI (HK Chapter) including PM001, PM002 & PM003 will receive the required 35 contact training hours which is one of prerequisites to sit for the examination of Project Management Professional (PMP) as offered by the Project Management Institute(PMI).
2. If students successfully complete the module "PM007 Business Analysis Essentials", they will be exempted from taking the required 30 training hours which is one of the prerequisites to sit for the examination of Professional in Business Analysis offered by the Project Management Institute (HK Chapter).
3. The module "PM006 Information System Audit" prepares students for the Certified Information Systems Auditor (CISA) examination as offered by the Information Systems Audit and Control Association(ISACA).

6.   Exemption

Students may apply for exemption for not more than one module based on prior study of similar module at a comparable level.   Application must be submitted before the programme commencement.

7.   Continuing Education Fund (CEF)

This programme has been included in the list of reimbursable courses for CEF purposes.   Students must complete a stipulated combination of modules in order to be eligible for fee reimbursement.

8.　Curriculum Details

Module	Project Management Foundation – Scientific Aspects

Learning Outcomes

On completion of the module, students should be able to

- Apply the 5 knowledge areas of the project management framework namely integration, scope, time, cost and risk management

- Develop key project management deliverables such as work breakdown structure, project plan and risk assessment register etc.

- Apply basic project management practices about project selection, initiation and planning

- Discuss the criteria in evaluating the effectiveness of IT project management

Syllabus

- Project management framework
    - Key project management concepts
    - Difference between projects and operations
    - Potential benefits of project management
    - Roles and responsibilities of a project manager
- Life Cycle Model
    - Project life cycle
    - Importance of stakeholders
    - Organizational structure in relation to project management
    - Key general management skills
- Integration Management
    - Develop project charter
    - Develop project management plan
    - Direct and manage project execution
    - Monitor and control project work

- Project scope management
    - Collect requirements
    - Define scope
    - Create WBS
    - Verify scope
- Time Management
    - Define activities
    - Sequence activities
    - Estimate activity resources and durations
    - Develop and control schedule
- Cost management
    - Types of estimates
    - Identify direct and indirect costs
    - Understand budget development model
    - Cost control concepts

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Learning Outcomes

On completion of the module, students should be able to

- Draft a basic contract

- Define the procurement processes from both buyer and seller perspective

- Identify risks in a typical contract

- Reduce project risks through improved bid and procurement management processes

Syllabus

- Procurement management process
    - Elements of project procurement management
    - Reasons for outsourcing
    - The 5 "P" of procurement process
- General practices in contracting
    - Some key rules of contract law
    - General rules of tendering
    - Procurement function performance
- Contract types and pricing models
    - Firm fixed price
    - Cost-reimbursement
    - Purchasing agreement
    - Factors that influence the selection of contract types
- Pre-contracting stage: tendering process of a buyer
    - Pre-award process overview
    - Plan purchases and acquisition
    - Plan contracting
    - Request seller responses

- Pre-contracting stage: bidding process of a seller
    - Business opportunity pre-qualification
    - Opportunity assessment
    - Bid preparation and review
- Award stage: selection and negotiation
    - Award process roadmap
    - Perspectives from buyers and sellers
    - Basic negotiation techniques
- Post-award stage: contract administration and closing

- Contemporary procurement issues

| Module | Project Management Foundation - Behavioral Aspects |

Learning Outcomes

On completion of the module, students should be able to

- Describe the importance and relevance of the 4 knowledge areas of the human aspects of project management framework, namely communications, HR, procurement and quality management

- Develop human resources management deliverables including communications matrix, issue log, progress report and quality management plan

- Apply some basic human resources management best practices such as conflict solution strategy, situational management style, active listening and team motivation techniques within the work place

- Evaluate the performance of project team members

Syllabus

- Project communications management
    - communications planning
    - communication environment
    - filter, noise, barrier, active listening
    - stakeholder analysis, performance reporting, information collection and distribution
    - issue management
- Project quality management
    - quality planning, assurance and control
    - quality establishment in project management process
- Guidelines of Quality Management Plan

    (QMP) devlopment

- Project HR management
    - team management, conflict resolution and motivation
    - power and influence
    - situational management style
    - virtual team management
- Managing project in a multi-cultural environment
    - communication issues in a multi-cultural project environment
    - adaptation to others' culture
- Selecting and developing project manager
    - Attention to details
    - Interpersonal skills
    - Idea communication

Module	IT Governance and Regulatory Compliance

Learning Outcomes

On completion of the module, students should be able to

- Identify the roles and responsibilities of the board of directors, audit committees and senior management and their accountability

- Evaluate the potential sources and areas of IT risks in a project

- Formulate IT control strategy for a project in compliance with standards and regulations

Syllabus

- Definition of corporate governance
  - Stakeholders – maximizing value
  - Governance framework
  - Ownership structure
- Enterprise risk management
  - A high level overview of ERM
  - The four driving key forces
  - Systematic approach to compliance requirements
- Compliance
  - Standards and procedures
  - Operationalizing the control structure
  - The COSO framework
- Risks and Controls
  - Internal control (Sarbanes-Oxley Act)
  - Assessment of information system risks
  - Control activities

- Security risk management
  - Critical factors to security risk management
  - Risk management vs Risk assessment
  - Conducting decision support
- Project risk management
  - Project risk management model
  - Qualitative and quantitative risk analysis
  - Project risk integration management
- ITIL overview
  - Benefits of ITIL
  - Elements of the ITIL lifecycle approach

Module	Agile Project Management

Learning Outcomes

On completion of the module, students should be able to

- Discuss the key components in Agile project management framework and how Agile can apply to software project development;

- Develop an Agile implementation plan;

- Critically review the factors for success implementation of the Agile development system.

Syllabus

- Agile concept
    - Problems of managing complex IT programming projects
    - What is Agile and the Agile development approach
    - Different implementation of Agile practices
- Foundation Principles of Agile
    - The 12 Agile principles, declaration of interdependency and Agile triple constraints
    - Agile process overview
    - Project manager roles and responsibilities
    - The potential pitfalls
- Value-driven delivery
    - Value delivery principles
    - Assessing value: ROI, NPV, Payback Period, IRR
    - Planning value: chartering, value stream, customer value prioritization, minimally marketable features etc.
    - Delivering value: task board, WIP limit, incremental delivery
    - Confirming value: prototyping, simulations and demos
    - Tracking and reporting value: earned value analysis, cumulative flow diagrams, risk burn down graphs

- Adaptive planning
    - Planning concept: time-boxing, progressive elaboration, process tailoring, minimally marketable features, prioritization and change request management, agile games
    - Estimating (time & cost): wideband Delphi and planning poker, ideal time, relative sizing / story points, affinity estimating
    - Agile plans: charter & business case, iteration and release planning, KPI
- Problem detection and resolution
    - Problem identification: quality management highlights and standards, cycle time, escaped defects, failure modes and alternatives
    - Problem resolution: continuous integration, risk-based spike, frequent verification and validation, test-driven development / test first development

Module	Information System Audit

Learning Outcomes

On completion of the module, students should be able to

- Examine the concept of information system audit;

- Design and evaluate the architecture that could ensure the confidentiality, integrity and availability of information assets; and

- Apply the best practices of information system audit process appropriately.

Syllabus

- IS audit process
  - Control objectives and controls related to information systems
  - Audit planning and audit project management techniques, including follow-up
  - Applicable laws and regulations that affect the scope, evidence collection and preservation, and frequency of audits
  - Audit quality assurance systems and frameworks

- IS acquisition, development and implementation
  - Benefits realization practices
  - Project governance mechanisms
  - IT architecture related to data, applications and technology
  - Acquisition practices (e.g., evaluation of vendors, vendor management, escrow)
  - Requirements analysis and management practices

- IS operation, maintenance and support
  - Techniques for monitoring third-party compliance with the organization's internal controls
  - Operations and end-user procedures for managing scheduled and nonscheduled processes
  - Control techniques that ensure the integrity of system interfaces
  - System resiliency tools and techniques
  - Capacity planning and related monitoring tools and techniques
  - Systems performance monitoring processes, tools and techniques

- Protection of information assets
  - Techniques for the design, implementation and monitoring of security controls
  - Processes related to monitoring and responding to security incidents
  - Logical access controls for the identification, authentication and restriction of users to authorized functions and data
  - Security controls related to hardware, system software
  - The configuration, implementation, operation and maintenance of network security controls
  - Network and Internet security devices, protocols and techniques
  - Detection tools and control techniques
  - Encryption-related techniques
  - Public key infrastructure (PKI) components and digital signature techniques
  - Controls and risks associated with the use of mobile and wireless devices
  - Data classification standards and supporting procedures
  - Environmental protection devices and supporting practices
  - Processes and procedures used to store, retrieve, transport and dispose of confidential information assets

Module	Business Analysis Essentials

Learning Outcomes

On completion of the module, students should be able to

- Identify the key concepts contained in the Business Analysis Body of Knowledge (BABOK) Guide standardized by the International Institute of Business Analysis (IIBA)

- Apply appropriate techniques and tools described in the BABOK Guide to the IT requirement collection and analysis processes in daily IT projects.

Syllabus

- Introduction to Business Analysis and Certification
    - What is Business Analysis & Role of Business Analyst
    - Competency Area
- Organizational Requirements Analysis
    - What is Enterprise Analysis and Enterprise Architecture
    - Enterprise Analysis Activities & Team Roles such as Feasibility Study and Business Case Preparation
- Needs and Requirements Management
    - What is Requirements Planning & Management
    - Stakeholder Management
    - Define business problems or opportunities
    - Develop business case
    - Requirements Management Activities and Team Roles, such as Scope and Change Management
    - Determine stakeholder value in a project
- Requirements Collection
    - Process and Team Roles for Requirements Collection
    - Techniques in Requirements Collection such as Brainstorming, Focus Group and Prototyping
- Requirement Analysis
    - Requirements Analysis Activities and Team Roles
    - Analyze Functional, Non-Functional, and Technical Requirements
    - Techniques in Requirements Verification
    - Data and Behavior Models
    - Process / Flow Model
    - Use Case Model
- Requirements Communication
    - Requirements Communication Activities and Team Roles
    - Create a Requirements Communication Plan
    - Manage Requirements Conflicts
- Solution Evaluation
    - Solution Assessment
    - Validation Activities and Team Roles
    - Support Implementation & Quality Assurance Processes
    - Post Implementation Review and Assessment

| **Module** | **Digital Social Media for Business** |

Learning Outcomes

On completion of the module, students should be able to

- Examine the concept of digital social media applications including E-business and mobile marketing in the modern business environment;

- Identify and interpret various digital social media components;

- Analyze and critique the strengths and weaknesses of different digital social media components; and

- Design and evaluate a digital social media marketing plan.

Syllabus

- Basics of Social Media
    - Understanding Social Media Strategies
    - Return on Conversation vs. Return on Investment
- New Media Components
    - RSS Feeds & Blog
    - Podcasting, Vidcasting& Webcasting
    - Social Networking & Micro-Blogging
    - Social Bookmarking & Crowdsourcing
- Media Communities
    - Image Sharing Sites
    - Video Sharing Sites
    - Document Sharing Sites

- Managing Mobile Technologies
    - Feeds
    - Just-in-Time Information
    - Location-Based Information
    - Digital Media Channels
    - Monitoring and Trend Tracking
- Mobile Apps Marketing Strategies
    - Widgets and Badges
    - Geo Location and Mobile Networking
    - User-experience Engagement with Mobile Apps
- Social Media Optimization
    - Development
    - Integration
    - Management & Measurement

Module	Retail Technology Management

Learning Outcomes

On completion of the module, students should be able to

- Examine the retail organizational behaviour;

- Evaluate the business benefits that retail technology could deliver;

- Analyse and critique the strengths and weaknesses of different retail technological solutions; and

- Design the retail technology application within an organization.

Syllabus

- Basics of Retail Information Technology
    - Characteristics of retail industry
    - Retail Information Technology
- Retail Automation and Information Systems
    - Various types of business information systems (ERP, CRM, POS, EDI, etc)
    - Data Warehouse/Decision Support Systems
    - Retail automation solutions (UPC, RFID, Samrtcards, etc)
    - Customer Information Devices
- Payment Technology
    - Electronic and mobile payment systems
    - Online currency
    - Risk Analysis

- Supply Chain and Logistics Management
    - Procurement strategy and inventory management
    - Logistics and operations management
    - Vendor collaboration & management
- E-tailing/Multi-channel Retailing
    - Definition of e-tailing and its application
    - Requirements and best practices of e-tailing

9. Course Fee

Total course fee: HK$32,000 (in one installment)

10. Enquiry

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