DEPARTMENT OF COMPUTER SCIENCE
College of Engineering
University of the Philippines
Diliman, Quezon City

COURSE SYLLABUS

CS 173 - I.T. SERVICE MANAGEMENT

A. Course Description

Course number	CS 173 (elective)
Course title	Introduction to I.T. Service Management
Description	Introduces the students to the ITIL Framework for best practices in I.T. Service Management
Prerequisites	3rd year standing and up
Course Credit	3 units
Number of Hours	3 per week
Meeting Type	Lecture/ Discussion
Objective	To develop an understanding of concepts, tools and techniques in modern I.T. Service Management and their current use in Enterprise/ Practice.
Learning Outcomes	At the end of the course, the students are expected to: • Weigh different theoretical and practical considerations infuencing the management of I.T. Services; • Demonstrate the use of appropriate Project Management processes, tools and techniques towards improvement of I.T. Services; • Deliver a Service Improvement Plan or Prototype that uses Project Management to deliver organizational impact .

B. Rationale

The use of I.T. for business is primary to deliver a host of different services that impact the efficiency and effectiveness of the different business processes. Over the years, the patterns of how the best and biggest companies use I.T. have been collected in what is called the I.T. Infrastructure Library. It has since then been distilled into a framework of best practices adhered to by an increasing number of organizations to promote a common I.T. service management practice.

This elective works to provide a computer science or engineering student skills in analysing business processes, managing projects and ultimately deriving value while managing risks in I.T. activities.

C. Course Outline

1. Course Outcomes

Upon completion of the course, students must be able to:

CO 1 Discuss a conceptual framework of I.T. Service Management and its underlying principles

CO 2 Apply appropriate tools and techniques for I.T. Risk Assessment and Project Management

CO 3 Identify the key principles related to each stage of I.T. Service Management

CO 4 Explain the processes of Demand, Capacity and Availability Monitoring

CO 5 Identify and plan for managing project risks and opportunities for improvement

2. Course Content

Course Topics	No. of Hours
Service Strategy	6
Service Design	9
Service Transition	6
Service Operations	15
Continuous Service Improvement	12
Total	48

3. Course Coverage

Mtg	CO(s)	Course Topic	Key Questions	Suggested Activities	Suggested Assessments
1	CO 1 CO 3	**Service Portfolio Management**	What's in a Service Portfolio?	Lecture / Class discussion	Class participation / recitation
2	CO 4	**Demand Management**	What are patterns of business activity?	Video Viewing on ITSM principles	Class participation / reflection
3	CO 1 CO 2	**Service Level Management**	What are SLA's, OLA's and Underpinning Agreements?	Video Viewing on ITSM principles	Seatwork on identification
4	CO 2 CO4	**Availability and Capacity Management**	How do you measure Availability and Capacity?	Lecture/ Class discussions	Problem solving quiz
5	CO 3	**Continuity Management**	What does it means to disaster-proof?	Class discussions/ role-playing	Class participation / Essay writing
6	CO 1 CO 3	**Change Management**	What is the only thing we're sure of?	Murphy's Game	Class participation / reflection
7	CO 2 CO 4	**Release, Deployment and Transition**	What role does I.T. play with human psychology?	Lecture / Class discussions	Class participation / reflection
8	CO 1 CO 3	**Service Desk and Request Fulfillment**	What gives end-users peace of mind?	Lecture / Class discussion	Poll on best Service Desk Technologies
9	CO 2 CO 4	**Incident Management**	What's the value of pretty band aids?	Class discussion / Role playing	Class participation / Recitation

Mtg	CO(s)	Course Topic	Key Questions	Suggested Activities	Suggested Assessments
10	CO 2 CO 5	**Problem Management**	When is the hassle of surgery worth it?	Lecture / Role playing	Quiz, Identify and explain root cause identification steps
11	CO 4 CO 5	**Event Management**	How do you minimize risks?	Class discussion	Reflection paper on a project, its risk matrix and suitable event management
12	CO 1	**Access Management**	What it means to give least-privilege permissions?	Lecture / Class discussion	Reflection paper on a project, its roles and a suitable least-privilege permission plan
13	CO 4 CO 5	**Service Strategies and Metrics**	What's a good metric/ index?	Class discussion / Demonstration of Project Management Tools	Reflection paper on a project strategy and appropriate metrics
14	CO 4	**Data Gathering**	How much does good data cost?	Class discussion / Role playing	Recitation / Reflection paper
15	CO 2 CO 5	**Data Processing and Analysis**	How does packaging help in delivery?	Class discussion / Demonstration	Case study
16	CO 5	**Data Presentation and Improvement Plan**	What do you know, how sure are you and how would you best to move forward?	Class discussion / Recitation	Case study
17					**Final examination**

4. Course Requirements

1. Case Studies
2. In-class Seatwork
3. Project Plan Proposal
4. Attendance and Participation / Recitation
5. Examinations (Midterms and Finals)

D. References

1. Axelos(2019).*ITIL® Foundation, ITIL 4 edition*.
2. P. Bourque and R.E. Fairley, eds.(2014). *Guide to the Software Engineering Body of Knowledge*. Version 3.0, IEEE Computer Society;www.swebok.org.