

# CPCS-457 Syllabus

## Catalog Description

**CPCS-457** Software Engineering Theory

**Credit:** 3 ( Theory: 3, Lab: 0, Practical: 0)

**Prerequisite:** CPCS-351

**Classification:** Elective

The objective of this course is to study the methods, values, attitudes, and techniques in software systems. It provides an understanding of the need for rigour and enables students to select and apply a relevant methodological approach to the development of well designed and documented systems.

### Class Schedule

Meet 50 minutes 3 times/week or 80 minutes 2 times/week

Lab/Tutorial 90 minutes 1 times/week

## Textbook

## Grade Distribution

Week	Assessment	Grade %
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## Topics Coverage Durations

Topics	Weeks
Management of software engineering projects	1
Risk identification	1
Project operations scheduling	1
Project management	1
Quality assurance	1
Design based on system engineering analysis	2
Object-oriented design	1
Design based on ready-made software components	2
Testing of project quality	1
Compliance with the modern software measurement and metrics	2
Compliance with modern system quality measurement metrics	1

## Last Articulated

## Relationship to Student Outcomes

a	b	c	d	e	f	g	h	i	j	k
	x							x		x

## Course Learning Outcomes (CLO)

By completion of the course the students should be able to

1. Describe the expectations, pressures and problems faced in developing software and the need for processes, tools, techniques and approaches ()
2. Outline the underlying processes of software engineering and critically assess relevant approaches ()
3. Analyze, design, test and maintain software systems and document these actions correctly. ()

## Coordinator(s)