

**1. Course number and name**

CptS 478: Software Process and Management

**2. Credits and contact hours**

3 credits, 3 lecture hours

**3. Instructor's or course coordinator's name**

Sakire Arslan Ay

**4. Textbook, title, author, and year**

R.E. Fairley. 2009. *Managing and Leading Software Projects*. Wiley-IEEE Computer Society Press.

I. Sommerville. 2011. *Software Engineering* (9th ed.). Addison-Wesley.

A.M.J. Hass. 2003. *Configuration Management Principles and Practices* (1st ed.). Addison- Wesley.

**5. Specific course information**

a. *Catalog description*: Software Engineering Process (definition, assessment, and improvement); Software Engineering Management; Software Configuration Management.

b. *Prerequisites or corequisites*: Cpt S 322 with a C or better; certified major in CptS, CptE, EE, or SE.

**6. Specific goals for the course**

By the end of the course, students will be able to

- Define what a software process is.
- Describe alternative software life cycles models and select the appropriate model for a given software project (1d,1e).
- Measure and assess a software process (2c, 2d, 2e, 6a, 6b, 6c).
- Explain fundamental elements of Software Project Management.
- Estimate software project effort and cost (2b, 2c, 2d, 2e,2f).
- Identify, analyze, and manage software project risks (1d, 1e, 6a, 6b, 6c, 6d)
- Execute a software project plan (2g).
- Describe the processes and procedures involved in software change management.
- Distinguish between system version and a system release, and be able to explain the stages in the release management process.

**7. Brief list of topics to be covered**

- Software engineering process
- Software process life cycles
- Software process assessment and improvement
- Software engineering management
- Software project planning, enactment, evaluation, and closure
- Software configuration management (SCM)