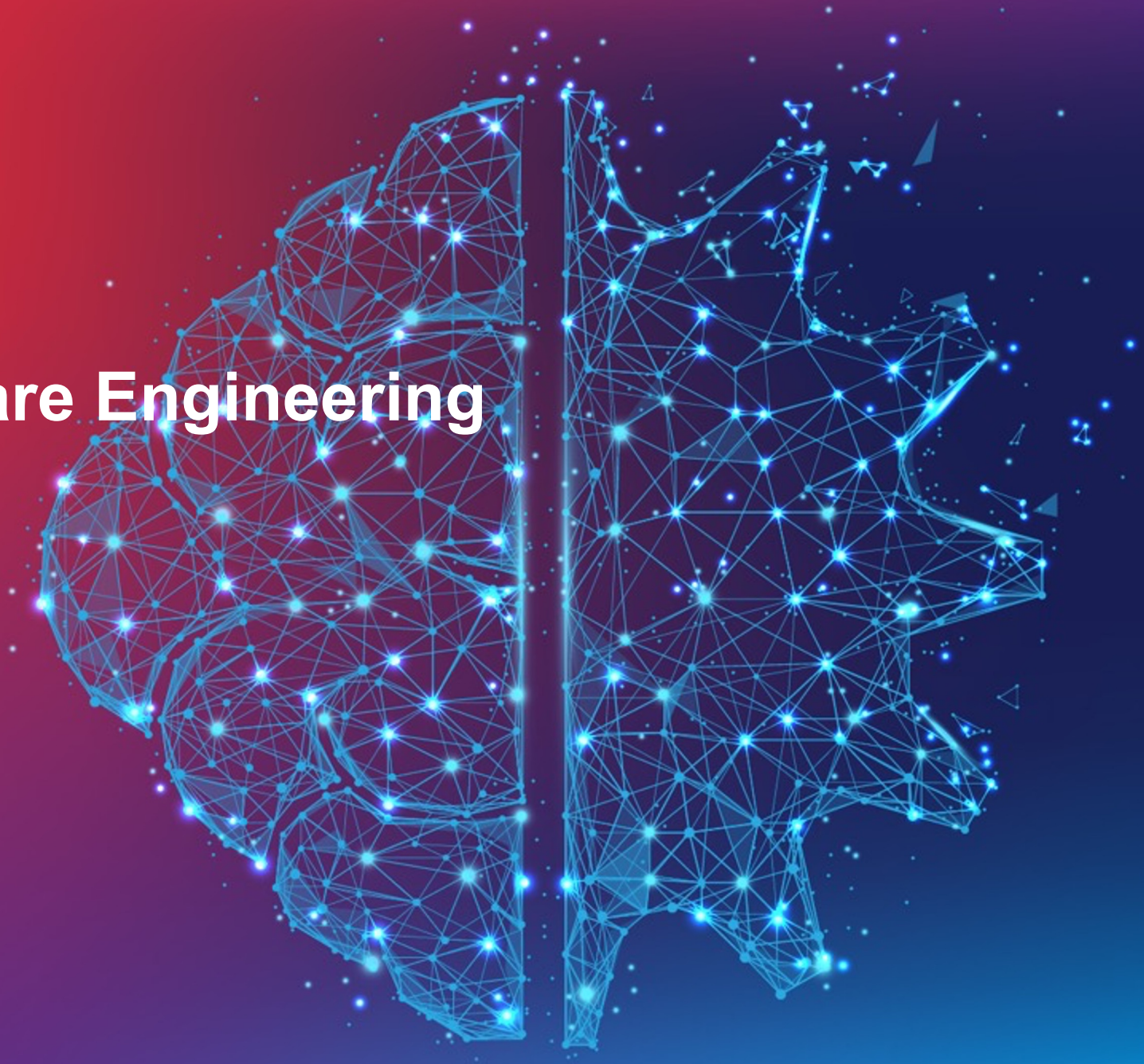
Object-Oriented Software Engineering

Dr. Anıl Koyuncu



> Course

CS 319 - Object-Oriented Software Engineering

Spring 2023-2024

> Schedule of lessons

	Day	Schedule	Location
Section 1	Monday	09.30-10.20	B-203
Section 1	Wednesday	13.30-15.20	B-203

> Teaching Team

➢ Office Hours

		Schedule	Office Hours
PI	Anıl Koyuncu	Monday 08.30-09.20	By Appointment
TA		TBD	
TA		TBD	
TA		TBD	
TA		TBD	

> Course Modality

> Resources

- All course materials will be distributed via Moodle.
  - Course slides
  - Additional materials
  - Etc..
- Assignments will only be accepted via Moddle

> Intended Learning Outcomes

- Software engineering practices
- Collect requirements
- Architecture and design
- Ideas into complete systems

> Tentative Schedule

Week	Topic
1	Introduction
2	Software engineering fundamentals
3	Software process and development life cycle
4	Requirements Engineering
5	Modelling with UML
6	Object Modelling
7	Dynamic Modelling
8	Midterm
9	Software Analysis and Design
10	Software Architecture
11	Design Goals
12	System Design
13	Design Patterns
14	Project final presentations

> Course Evaluation

- Midterm (20%)
- Final (33%)
- Project (45%)

- Quiz / Homework / Participation (2%)

- Those students who fail to get a minimum of 17 out of 65 points will get an FZ

> Term Project Deliverables

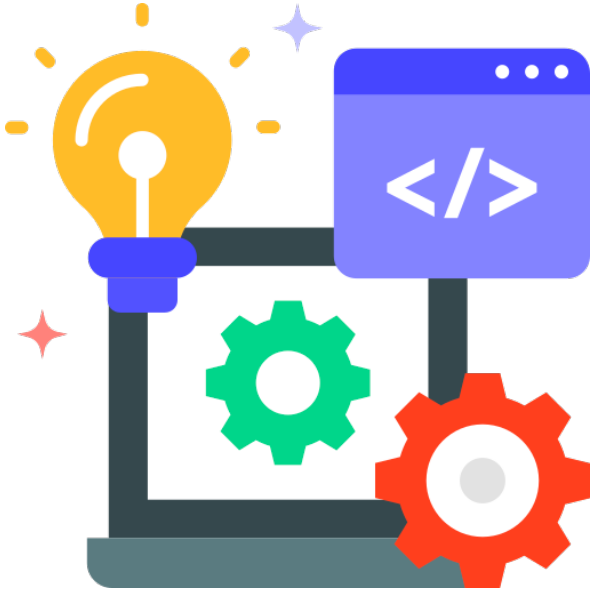
Deliverable	Item	Deadline
D0	Team Selections	
D0	Github repo creation	
D0	Project Proposal	W3
D1	Use Case Diagrams	
D1	Non functional Requirements	
D1	Tech. Stack	W4
D2	Early Prototype	W5
D3	Domain Model	
D3	Activity Diagrams	
D3	Sequence Diagrams	
D3	Mock-up / Wireframes	W8

Deliverable	Item	Deadline
D4	Design Goals	
D4	High Level arch	W11
D5	Updated Class Diagrams	
D5	Design Patterns	W12
D6	Build Instructions	
D6	User Manual	
D6	Source code / Release	W13
D7	Presentations and Demo	W14

> Course Project

Theme:

- University course management system



> Project Constraints

- The project must be suitably large for a 4-6 people team.
- Cross-functional (full-stack) team members.
  - No only frontend, backend, DB, system developers are allowed.
- The project must be a database-driven web app.
  - Choose your own tech. stack. Your team is ultimately responsible for choosing and learning these.

> Project Constraints: Version control

- https://github.com/CS319-23-SP
- Issue & Project Tracking

- Version Control
  - Commits are **evidence** of your work!!!
- Use feature branches
- Use pull requests

> Project Advices: Planning

- Methodology
  - hold weekly team meetings (at mutually agreed time),
  - triweekly status meeting with TA (W6,W9,W12).

> Weekly status reports / worklogs

Starting from Week 3

1. Outline your plans and goals for the previous week

2. Report on progress and issues
   what you did, what worked, what you learned, where you had trouble, and where you are stuck.

3. Outline your plans and goals for the following week

4. Submit your worklogs via Moodle

> Triweekly status meeting

1. W6, W9, W12

2. Meet with a TA for 15-20 minutes

3. Report on progress and issues

   what you did, what worked, what you learned, where you had trouble, and where you are stuck.

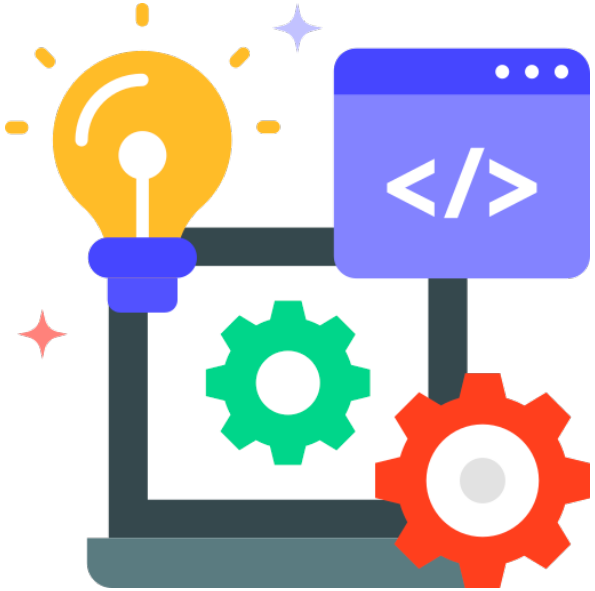
> Project Proposal

Submit a Project Description (GitHub Readme)

1. Project title?
2. Team members?
3. [300-word minimum] Description: A brief description of your proposal
   - What is the **motivation** ?
   - What are the **goals** ?
   - What important **problem** will the web app solve?
   - What sorts of **features** will the web app have?
   - What are the **selling points** of the web app?
   - What make this web app **interesting/cool**?
4. Record a 2-3 minutes slideshow presentation video

> Course Project

- University course management system
  - Initial requirements
  - Additional constraints
  - Additional stakeholders



> Questions?

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