

## CAS CS411 Software Engineering Fall 2019 Schedule

Week	Lecture	Topics	Discussion (Friday)	Items Due
1	Sep 3/5	Course Intro Defining software engineering Software development models (waterfall, RUP, Agile, etc)	Intros	
2	Sep 10/12	Requirements analysis: use cases and user stories Source control	Teams assigned git lab Quiz 1	Case 1: "What is Code?"
3	Sep 17/19	Data architectures Representations of data (XML, JSON)	JSON lab Quiz 2	
4	Sep 24/26	RESTful interfaces Node.js / Express overview	Pitches (all teams) Quiz 3	Proj HW1: Pitch
5	Oct 1/3	Software architectures	Team: Use cases Quiz 4	Proj HW 2: Primary use cases / github repo
6	Oct 8/10	Tuesday: Front-end concepts (and Angular demo) <b>Thursday Midterm Exam (in class)</b>	Team: Architecture	
7	Oct 15/17	Tuesday: NO LECTURE (sub Monday) Thursday: DevOps and toolchains		
8	Oct 22/24	System modeling, diagramming, and UML	Team: UML diagrams	Proj HW 3: Architecture Case 2: FOSS Toolchain

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9	Oct 29/31	Authorization and authentication OAuth / JWTs	OAuth / Postman lab Quiz 5	
10	Nov 5/7	App configuration Migration Strategies	<b>Prototype demos</b> Quiz 6	Proj HW 4: Data plan / diagrams
11	Nov 12/14	Testing software Design principles: YAGNI, SOLID, DRY, dependency inversion, etc	Testing lab	Case 3: Performance
12	Nov 19/21	Security engineering CORS/CSRF - Reverse proxy servers	Quiz 7	Proj HW 5: Test plan Case 4: SE at Google
13	Nov 26/28	Thanksgiving Break		
14	Dec 3/5	Reliability vs Availability Serverless architectures	Quiz 8	
15	Dec 10/12	Project management overview UI/UX	Final project presentations Quiz 9	Final project documents
16	<b>Dec 16-20</b>	Final exam Location / time TBD		