Lectures: Tuesday, 8:30am				Lab: Monday 1:30pm		
#	Date	Topics	Seminar	#	Date	Assignment
1	22-Sep	Introduction to course; Application Layer; DNS revisited; Web, HTTP	----------	1	21-Sep	Introduction to the lab activities Introduction to assignment 1: Anatomy of a web service
2	29-Sep	HTTP 2; TLS; Caching; Cooperative Caching; CDN	----------	2	28-Sep	Anatomy of a web service: moving to the cloud; measuring response time
3	06-Oct	How to find contents? P2P networking structured: DHT, example: chord How to find contents? P2P networking: unstructured (Gnutella), improving search, Bittorrent	Measuring the Quality of Experience of Web users	-	05-Oct	----------
4	13-Oct	Guest: António Rodrigues, ICN Internet of Things (e2e): architecture, transport protocols, services, data	A QoE Perspective on HTTP/2 Server Push	3	12-Oct	Wrapping up assignment 1 Choice of project
5	20-Oct	Multimedia, requirements, playout buffer; IETF stack for conversational multimedia RTP/ RTCP/ SDP/ RTSP	QoE Analysis of Spotify Audio Streaming and App Browsing	4	19-Oct	Project abstract and plan Discussion of project proposals
6	27-Oct	video over HTTP, MPEG-DASH; DASH over TCP Guest: Vítor Calçada, Video/ TV distribuition	Video Sessions KPIs clustering framework in CDNs	5	26-Oct	Free project execution, discussion, problem solving
7	03-Nov	'Congestion control; network performance metrics	BBR: Congestion-Based Congestion Control	6	02-Nov	Free project execution, discussion, problem solving
8	17-Nov		-	7	16-Nov	Free project execution, discussion, problem solving
9	24-Nov	Resource allocation mechanisms: traffic shaping, policing, scheduling; QoS paradigms: IntServ, DiffServ	QoE-Based User-Regulated Congestion Control	8	23-Nov	Presentation of free projects. Each group presented and demoed their work to the whole class.
-	01-Dec	----------	----------	9	30-Nov	Introduction to Lab 3: Providing QoS to Adaptive Video Analysis of a Media Description Profile file; observation of video adaptation. Design of a congestion experiment.
-	08-Dec	----------	----------	10	07-Dec	Implementation of congestion experiment. Observation of video rate adaptation. First contact with traffic control
10	15-Dec	Net neutrality	BingeOn Under the Microscope: Understanding T-Mobiles Zero-Rating Implementation Net neutrality: BEREC article 3: Safeguarding of Open Internet Access	11	14-Dec	Implementation of filters and hierarchical token bucket to guarantee bandwidth to video stream.