

COMS W4172 3D User Interfaces and Augmented Reality Syllabus and Assignments

Spring 2025, Tu/Th 1:10–2:25pm, MUDD 227

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Schedule is subject to change! (L n = LaViola et al. Chapter n ; S n = Schmalstieg and Höllerer Chapter n)

#	Date	Topics/chapters covered	Assignment	Due date
1	Tue Jan 21	Introduction (L 1–2; S 1)		
2	Thu Jan 23	Introduction 2		
3	Tue Jan 28	Design principles	Assignment 0	Thu Jan 30
		Note: Assignments 0 and 0.5 are <i>not</i> handed in! We just want you to do them!		
4	Thu Jan 30	Design principles 2	Assignment 0.5	Sat Feb 1
5	Tue Feb 4	Math		
	Tue Feb 4 6:45–8:45pm	Unity help session [optional] in Pupin 313		
6	Thu Feb 6	Math 2 ; Development software ; Case study: 3D windows/desktops/workspaces	Assignment 1	Tue Feb 25
	Thu Feb 6 6:45–8:45pm	Unity help session [optional] in Pupin 313		
7	Tue Feb 11	Case study: 3D windows/desktops/workspaces 2 (Microsoft Task Gallery paper (video); Sun Project Looking Glass (video or less compressed copy of video to download); BumpTop paper (video); SpaceTop paper (video); Personal Cockpit paper (video), Facebook Infinite Office (video); Work in the Metaverse (video), Immersed (video), Sightful Spacetop , Apple Vision Pro (video))		
	Tue Feb 11 6:45–8:45pm	Unity help session [optional] in Fayerweather 302		
8	Thu Feb 13	Case study: 3D windows/desktops/workspaces 3 ;		

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[Perception, displays, and devices](#) (L 3, L 5.1–5.2, S 2)

9	Tue Feb 18	Perception, displays, and devices 2		
10	Thu Feb 20	Perception, displays, and devices 3		
11	Tue Feb 25	Perception, displays, and devices 4		
12	Thu Feb 27	Perception, displays, and devices 5 ; Selection and manipulation (L 5.3–5.8, L 7); Hear NASA Ames 3D audio spatialization demo [if your browser doesn't have a plug-in for .mp3 files, you may need to right-click and save this file to play it]. <i>Please listen through stereo earphones!!!</i>	Assignment 2	Tue Mar 11
13	Tue Mar 4	Selection and manipulation 2 (L 6)		
14	Thu Mar 6	Selection and manipulation 3		
15	Tue Mar 11	Development tools: Unity mobile device input and AR Foundation	Assignment 3	Thu Apr 3
16	Thu Mar 13	Selection and manipulation 4 ; Travel (L 8–8.8)		
	Tue Mar 18	No class: Spring Break		
	Thu Mar 20	No class: Spring Break		
17	Tue Mar 25	Travel 2		
18	Thu Mar 27	Development tools: Unity networking	Final project	
			Team name, members, and one-sentence project idea:	Wed Apr 2 11:59pm
			Proposal:	Thu Apr 10
			Three progress reports:	Thu Apr 17, Thu Apr 24, Thu May 1
			Individual team meeting:	To be scheduled Tue-Wed May 6–7
			Presentation (official exam time):	Expected to be Tue May 13

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- 19 Tue Apr 1 **Travel 3**
- 20 Thu Apr 3 **Travel 4**
- 21 Tue Apr 8 **Wayfinding** (L 8.9–8.12)
- 22 Thu Apr 10 **Final project proposal** (Each team will give an overview of their proposed project, addressing the issues posed in the assignment.)
- 23 Tue Apr 15 **Wayfinding 2**
- 24 Thu Apr 17 **Final project progress report 1** (Each team will give a brief overview of their progress)
- 25 Tue Apr 22 **Wayfinding 3; 3D tracking** (S 3, 4)
- 26 Thu Apr 24 **Final project progress report 2** (Each team will give a brief overview of their progress.); **3D tracking 2**
- 27 Tue Apr 29 **3D tracking 2; Evaluation** (L 11)
- 28 Thu May 1 **Final project progress report 3** (Each team will give a brief overview of their progress.)
- Tue–Wed
May 6–7 **Individual project team meetings** (30-minute meetings to be scheduled)
- Expected to
be Tue May
13
1:10–4pm
Mudd 227 **Final project presentations** (*Held during our scheduled final exam time, expected to be Tue May 13 1:10–4pm*). Each team will give a presentation, including a demonstration, followed by a question-and-answer session. All final project material must be uploaded to CourseWorks by 11:59pm.