

Title	Advances in Architectural and Urban Science (AAUS)		
Title in Chinese	建成环境科学前沿		
Course ID	10001630016		
Coordinator	Yang Feng 杨峰	ID	10103
About the course	Advances in Architectural and Urban Science (AAUS) is a RPG course (conduct in English) starting in 2025 autumn semester. It is scheduled as a weekly 2-hour event. Invited speakers will introduce a key research area (the history, state of the art and future directions) and share their insight, vision and passion. With lectures, panel discussion and guided group seminar, it aims to help students broaden their academic horizon, appreciate the cross- and inter-disciplinary research pathways, and ultimately to support their theses development. 建成环境科学前沿是面向 CAUP 建筑类研究生（硕博）的专业学位课(由原建筑技术科学基础和建筑技术科学前沿两门课合并，改为全英文授课)。邀请来自相关领域的知名专家学者介绍某研究领域的发展概貌、前沿动态及未来趋势，分享洞见、观点和热情；结合讲座后的问答及讨论，以及课后阅读及课堂研讨，课程将帮助学生拓宽学术视野、提高跨学科研究能力、强化研究方法/技术以及启发和帮助论文选题和发展。		
Schedule	The timeslot: 18:30-20:05, Thursday, WK1-16, Autumn semester 2025. The Place: D2, CAUP, Tongji University, 1239 Siping Road, Shanghai. A session can include a 45-60min lecture followed with a panel discussion; or it can be a guided student group seminar. 课程时间为 25 年秋季学期 1-16 周，每周四晚 18:30-20:05。地点：D2。 每次包含 45-60 分钟的专家讲座以及专家讨论；或学生分组研讨。		
Student assignment	A mini research proposal; and/or a 5-min presentation/talk or an A4 size one-page introduction to his/her research. 课程作业：选课学生每人提交一份研究计划书面概述；及/或 5 分钟的口头汇报，介绍自己计划的研究。		

建成环境科学前沿 2026 Advances in Architectural and Urban Science (20001630056)

WK /周	Date/ 日期	Scheduled Content/授课内容	Lecturer/ 主讲教师	Area of Research/ 研究领域/教学模块
1	9.17	L1: Advancing Climate-Responsive Design for High-Density Asian Cities / 高密度亚洲都市的气候响应性设计研究议题.	YANG,FENG 杨峰	THERMAL/URBAN
2	9.24	L2: Dynamic Thermal Comfort: A Human-Centric Design Paradigm in the Built Environment / 动态热舒适: 建筑热环境中的人本设计新范式	LI, PEIXIAN 李佩娴	THERMAL/BLDG/BEH AVIOR
3	National Holiday/国庆假期/National Holiday/国庆假期/National Holiday/国庆假期			
4	10.8	L3: District Energy Bus System (5GDHC) Planning and Design / 区域能源总线系统规划与设计.	FAN, RUI 范蕊	THERMAL/ENERGY/U RBAN
5	10.15	L4: Humanizing Mixed Reality: Virtual Habitats with Behavior Computation / 人因混合现实: 基于行为性能计算的虚拟人居探索	YAN,CHAO 闫超	DIGITAL/VR/BEHAVIO R
6	10.22	L5: Coupled Wind, Thermal, and Moisture Effects of Trees and Their Impacts on the Microclimate / 城市绿化的风热湿效应及其对室外热环境的调节.	GAO, NAIPING 高乃平	THERMAL/GREEN/UR BAN CLIMATE
7	10.29	L6: High Performance Building Envelope and Intelligent Control / 高效围护结构与智慧调控.	ZHUANG, ZHI 庄智	THERMAL/BLDG/DIGI TAL/ENERGY
8	11.5	S1: Mid-term Seminar / 研讨: 课程中期汇报	YANG,FENG 杨峰	
9	11.12	L7: Urban Building Energy Modeling — Concept, Methodology, and Applications / 城市建筑群能耗模拟——概念、方法 and 应用.	SHI, XING 石邢	THERMAL/URBAN
10	11.19	L8: Soundscape and Digital Design / 声景与数字化设计.	XU,XIAOQI NG 许晓青	ACOUSTIC/SOUNDSC APE
11	11.26	L9: Quantifying the Mental Health Benefits of Biophilic Environments: an Experimental Approach with Virtual Reality / 量化亲自然环境心理健康效益: 一种虚拟现实实验方法.	YIN, JIE 尹杰	DIGITAL/VR/HEALTH/ LANDSCAPE
12	12.3	L10: Hortitecture: From Roof Garden to Solar Green Roof / 植筑学: 从屋顶花园到光绿复合屋面.	DONG, NANNAN 董楠楠	VERTICAL GREEN: GF/GR/RE
13	12.10	L11: Daylight Sensing and Simulation Technologies / 自然光环境的监测与模拟技术	WU,YUJIE 吴宇杰	DAYLIGHTING/AI
14	12.17	L12: Intelligent Optimization Methods for Performance-based Architecture / 性能化建筑智能优化方法.	YAO,JIawei 姚佳伟	DIGITAL/INTELLIGEN T/ENERGY CARBON
15	12.24	L13: Integrating Nature for Urban Well-Being: From Tree Canopies to Window Views / 从树木到窗景: 自然和城市空间健康福祉.	ELSADEK, MOHAMED	PERCEPTION/HEALTH /LANDSCAPE
16	12.31	S2: Seminar & Source Summary / 研讨: 课程结题汇报; 课程总结	YANG,FENG 杨峰	
Note: L - lecture (-45 min); MS - micro seminar (-45min); S -seminar				