CPT208

Human-Centric Computing
Department of Computing Stage 3 | Level 2

SECTION A: Basic Information

Brief Introduction to the Module

Human-Centric Computing is a level one module that provides students with the up-to-date guidelines, concepts and models for designing and evaluating interactive systems. Students will learn about the theories and methodologies in designing and implementing graphical user interfaces, through a set of useful tools.

Key Module Information

Module name	Module code	Credit value	Semester in which the module is taught	Pre-requisites needed for the module
Human-Centric Computing	CPT208	5	SEM2	CPT105 OR CPT111
Programmes on which the module is shared	BEng Digital Media Technology BSc Information and Computing Science BSc Information Management and Information Systems			

Module Leader and Contact Details

Module Leader:

Name	Email address	Office telephone number	Room number	Office hours	Preferred means of contact
Yue Li	Yue.Li@xjtlu.edu.cn	81883223	SD457(SIP Campus-Science Building)	14:00-16:00 Friday	Email
Brief Biography	Dr Yue Li (李月) is an Assistant Professor at the Department of Computing, Xi'an Jiaotong-Liverpool University. She graduated from the University of Nottingham in 2020 with the Postgraduate Award. Dr Li's research interest is in the field of Human Computer Interaction (HCI), with particular emphasis on Virtual Reality (VR) and Augmented Reality (AR) technologies. She has been actively involved in research related to the design, evaluation and application of VR and AR in the social context, particularly the technology-enhanced learning activities in cultural heritage and education. For more information about me: https://imyueli.github.io/ My research lab (HER Lab): https://hiherlab.github.io/				

Additional Teaching Staff and Contact Details:

Role	Name	Email address	Office telephone number	Room number	Office hours	Preferred means of contact
Co-teacher	TENG MA	Teng.Ma@xjtlu.edu.cn	88970349	SD459	13:00-15:00 Friday	Email

SECTION B: What You Can Expect from the Module

Educational Aims of the Module

To enable students to take a systematic approach to the specification, implementation, and evaluation of user interfaces in contemporary computing systems.

Learning Outcomes

Students completing the module should be able to:

A. Recognize the issues involved in designing computer systems for people including an understanding of the relevant legal, social, ethical and professional issues.
B. Demonstrate an understanding of the methods and techniques for interaction design, recognising the responsibilities, benefits and importance of supporting equality, diversity and inclusion.
C. Develop technical skills required for prototyping interactive systems.
D. Critically evaluate interactive systems.
E. Demonstrate an understanding of the methods and issues involved in deploying interactive systems to meet business goals.

Methods of Learning and Teaching

• Lectures. To introduce students to the academic content and practical skills which are the subject of the module. Students will be expected to attend two hours of formal lectures each week.
• Seminars. To allow students to practice skills learnt from the lectures and to work on assignments. Students will be expected to participate in two hour of supervised seminar in a computer lab each week.
• Private study. To provide time for reflection and consideration of lecture material and background reading. Students will be expected to devote approximately seven hours of unsupervised time to private study.
• Continuous assessment will be used to test to which extent practical skills have been learnt.
• A written examination at the end of the module will assess the academic achievement of students

Syllabus & Teaching Plan

Week Number	Mode of Delivery(Lecture/Tutorial/Seminar/Field Trip/Other)	Topic	Pre-reading and others
W1	Lecture/Seminar	Module Introduction	Chapter 1
W2	Lecture/Seminar	Discovering Requirements	Chapter 11
W3	Lecture/Seminar	Conceptual Prototyping and Practical Guide	Chapter 12, 13
W4	Lecture/Seminar	Heuristic Evaluation, Questionnaire, and Interview	Chapter 8, 9, 10
W5	Lecture/Seminar	Design Principles and Design Alternatives	Chapter 2, 3
W6	Lecture/Seminar	Prototyping Fidelity and Dimensions	Chapter 12, 13
W7	Lecture/Seminar	*Reading Week*	Chapter 4, 5, 6
W8	Lecture/Seminar	*Group Project Demonstration Day*	
W9	Lecture/Seminar	Usability Testing & Experimental Design	Chapter 14, 15
W10	Lecture/Seminar	Interfaces and Research Considerations	Chapter 7
W11	Lecture/Seminar	Field Study and Analytics	Chapter 15, 16
W12	Lecture/Seminar	*Flipped Classroom: Selected Coursework Demonstration*	
W13	Lecture/Seminar	Revision	

Assessment Details

Initial Assessment

Final Exam (70% of the module mark)

Assessment Type: *EXAM*
Learning outcomes assessed: *ALL*
Duration: *2.0 hours*
Resit opportunity: *S*

Assessment Task	Learning Outcomes	Weighting	Release Date	Due Date
Final Exam	ALL	70%	/	/
Generative AI Permissions	/			
Requirements and Guidelines for the Exam				
The written examination will take place at the end of the semester. It covers all the teaching materials taught in the module.				

Portfolio (15% of the module mark)

Assessment Type: CW
Learning outcomes assessed: ALL
Duration: N/A
Resit opportunity: S

Assessment Task	Learning Outcomes	Weighting	Release Date	Due Date
Portfolio PDF	ALL	10%	17/Feb/2025	09/May/2025
Generative AI Permissions	Allowed in line with the university GAI guideline.			
Requirement and Guideline of the Assessment Task				
A PDF file with up to ten pages of visual images and texts, clearly describing the project design, prototyping, and evaluation process and outcome, as well as personal reflections.				

Assessment Task	Learning Outcomes	Weighting	Release Date	Due Date
Project Demo Video	ALL	5%	17/Feb/2025	09/May/2025
Generative AI Permissions	Allowed in line with the university GAI guideline.			
Requirement and Guideline of the Assessment Task				
A MP4 video in up to 3 minutes, clearly demonstrating the conceptual design, the digital and/or physical prototyping and implementation outcome, as well as the evaluation results.				

Report (15% of the module mark)

Assessment Type: CW
Learning outcomes assessed: ALL
Duration: N/A
Resit opportunity: S

Assessment Task	Learning Outcomes	Weighting	Release Date	Due Date
Group Presentation and Poster with Peer Assessment	ALL	15%	17/Feb/2025	07/Apr/2025
Generative AI Permissions	Allowed in line with the university GAI guideline.			
Requirement and Guideline of the Assessment Task				
A 5-min group presentation next to a poster, taking place on the group project demonstration day. A peer assessment will be conducted to evaluate individual contributions.				

Resit Assessment

Summer resits are not applicable for Undergraduate Stage 4 students.

Exam (100% of the module mark)

Assessment Type: EXAM
Learning outcomes assessed: ALL
Duration: 2.0 hours

Assessment Task	Learning Outcomes	Weighting	Release Date	Due Date
Exam	ALL	100%	/	/
Generative AI Permissions	/			
Requirements and Guidelines for the Exam				
The resit exam will contribute 100% to the final mark.				

Reading Materials

Type	Title	Author	ISBN/Publisher
Mandatory Textbooks	N/A		
Optional Textbooks	HUMAN COMPUTER INTERACTION	A. DIX J. E. FINLAY G. D. ABOWD R. BEALE	9780130461094/PEARSON
	INTERACTION DESIGN: BEYOND HUMAN - COMPUTER INTERACTION	JENNY PREECE, YVONNE ROGERS, ANDANDAND HELEN SHARP	9781119901099/WILEY, 2023
Reference Textbooks	THE DESIGN OF EVERYDAY THINGS (REVISED AND EXPANDED EDITION)	DONALD NORMAN	9780262525671/BASIC BOOKS
	DESIGNING THE USER INTERFACE: STRATEGIES FOR EFFECTIVE HUMAN-COMPUTER INTERACTION 6TH EDITION	BEN SHNEIDERMAN	9781292153919/PEARSON
	RESEARCH METHODS HUMAN COMPUTER INTERACTION 2ND EDITION	JONATHAN LAZAR JINJUAN FENG HARRY HOCHHEISER	9780128053904/ELSEVIER
	USER CENTERED SYSTEM DESIGN: NEW PERSPECTIVES ON HUMAN-COMPUTER INTERACTION 1ST EDITION	DONALD A. NORMAN	9780898598728/CRC PRESS
Additional Materials			

SECTION C: Additional Information

This section provides students with essential information and resources pertaining to their academic studies to ensure a successful academic journey and engagement with the module.

Student Feedback:

The University is committed to receiving and responding to student feedback in order to improve the quality of the student experience within the institution. It is University policy that the preferred way of doing this is by using the Online Student Module Feedback Questionnaire Survey. Students are encouraged to complete the questionnaire survey for this module at the end of the semester.

Attendance:

The University expects students to attend all timetabled learning sessions associated with this module, and to engage with the relevant learning and support resources. Student attendance will be recorded using the Attendance Management System (AMS). Please follow your teacher's instructions for recording your attendance at each session. Students are responsible for managing their attendance, and should take prompt action to inform the Module Leader in case circumstances beyond their control affect their class attendance. You are advised to read the University's 'Student Attendance Policy' for more information.

Rules of Submission for Assessed Coursework:

The University has detailed rules and procedures governing the submission of assessed coursework. You need to be familiar with the rules and procedures as detailed in the University's 'Code of Practice on Assessment'.

Late Submission of Assessed Coursework:

The University attaches penalties to the late submission of assessed coursework. You need to be familiar with the rules as detailed in the University's 'Code of Practice on Assessment'.

Mitigating Circumstances:

Students who experience serious illness or other unforeseen circumstances as defined in the Mitigating Circumstances (MC) Policy that prevent them from submitting coursework or taking final/resit exams on time can apply for coursework deadline extension or final/resit exam authorized absence. The application should be made before the assessment date under Academic Records page on e-Bridge. Misuse of the MC policy will result in disciplinary actions and demerit points.

Academic Integrity:

The University aims to foster a learning environment which produces students who embrace academic integrity, understand that they must produce their own work, are able to acknowledge explicitly any material that has been included from other sources or legitimate collaboration, and to present their own findings, conclusions or data based on appropriate and ethical practice. Any violation of academic integrity including plagiarism, collusion, copying, submission of commissioned or procured work, and/or falsification and fabrication of data will result in penalties and demerit points. Please be familiar with the University's Academic Integrity Policy.

Examination Misconduct:

The University also values academic integrity in the conduct of examinations. Any behavior that violates examination regulations will not be tolerated and will result in penalties and demerit points, as detailed in the policy of Regulations for Conduct of Examinations.

Student Discipline Point System:

Any violation of Academic Integrity Policy, Regulation for Conduct of Examinations, and abuse of the Mitigating Circumstances Policy will accrue demerit points. These points will be placed in the university system, and on the official XJTLU transcript. For details, please refer to the Student Discipline Point System appended to the Regulations for the Conduct of Examinations.

Generative AI:

Information on whether the use of Generative AI is permitted or not for each assessed coursework is indicated in the Assessment Details section of this module handbook.

For more information and resources on Generative AI and your learning and assessment, please consult the 'XJTLU AI for Learning' pages of the Learning Mall Core.

Learning Mall Core:

Copies of lecture notes and other materials are available electronically through the Learning Mall Core, the University's virtual learning environment, at learningmall@xjtlu.edu.cn.

Communication:

All official communication concerning module-related matters will be conducted via e-mail and/or as Learning Mall Core announcements. Other modes of electronic communication are treated as informal.

Further Support:

You are advised to contact your Module Leader in the first instance if you experience any issues with your learning on this module. You may also contact your Academic Advisor or Programme Director. Further information on the kinds of support that the University provides to students can be found in the XJTLU Student Handbook.

You are strongly advised to read the policies mentioned above very carefully, because this will help you perform better in your academic studies. You can find all the policies and regulations related to your academic study on the e-Bridge → 'Document Zone' page.