Course Description (Higher Education)

School

Course Title	USER EXPERIENCE
Course ID	ITECH3001
Credit Points	15.00
Teaching Period	2020/05
Author	Dengsheng Zhang
Pre-requisites	(ITECH1103 and ITECH2003)
Co-requisites	Nil
Exclusions	Nil
ASCED Code	020305

Description of the Course for Handbook Entry:

What makes a computer system easy and fun to use? This course examines the boundary between the human and the computer, and explores ways to improve the experience of using computer systems. This course focuses on User Experience (UX) and User Interface (UI) in a range of contexts with particular focus on the presentation of complex data and information to users for analysis.

Grade Scheme	Graded (HD, D, C, etc.)
Placement Component	No
Supplementary Assessment	Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

Program Level

AQF Level of Program						
	5	**6**	**7**	**8**	**9**	**10**
Level						
Introductory						
Intermediate						

AQF Level of Program						
	5	6	7	8	9	10
Level						
Advanced			✔			

Organisation

Delivery Mode

Regular semester

Structure

This course consists of a 2-hour lecture and a 2-hour tutorial session per week. Online students must spend equivalent time on the two activities.

Staff

Role	Name	Room	Telephone	Email
Course Coordinator	Dengsheng Zhang	4N-226	5122 6772	dengsheng.zhang@federation.edu.au
Lecturer	Sally Firmin	T244	5327 9739	s.firmin@federation.edu.au
Lecturer	Faizan Bomassy	T211		fbomassy@federation.edu.au

Timetable

Type	Day	Time	Room	Staff / Comment
Lecture	Monday	3:30-5:30	T204	
Laboratory	Friday	8:30-10:30	Y230	

Additional consultation time can be booked by contacting the staff member concerned directly.

Learning Outcomes

Knowledge

K1. Demonstrate an understanding of human factors in IT systems;

K2. Identify the components that make up the User Experience (UX) of an IT system, and compare and contrast the effects of positive and negative user experiences;

K3. Identify User Experience (UX) problems in real-world systems;

K4. Recognize the differing needs and requirements that users may have of a system.

Skills

S1. Measure the usability of IT systems using quantitative and qualitative metrics;

S2. Critique IT systems from a human factors perspective;

S3. Design and evaluate User Interfaces using formal and informal processes.

Application of knowledge and skills

A1. Construct a suitable User Experience design to meet specific IT system design requirements.

Content

This course investigates the design and implementation decisions that affect the experience of users working with IT and computer systems. The concepts of User Experience (UX), Human-Computer Interaction (HCI) and User Interface (UI) are explored in detail, and are used to deconstruct and evaluate existing designs. Formal and informal UX and UI design approaches are used to develop a UX for an IT system.

Topics may include:

- Psychology of design;
- Design of physical objects;
- User Interface;
- Usability;
- UI patterns;
- UX design techniques;
- AI for UX;
- Data visualization;
- Ethics (Convenience vs surveillance, Smart vs Dumb devices, Obsolescence, Smart everything);
- Emerging UI technologies.

Values

V1. Respect the identity, ability, experience, security and privacy of users of computer systems;
V2. Recognise the types of impact that design choices can have on the experience of users.

Graduate Attributes

graduate attributes statement. To have graduates with knowledge, skills and competence that enable them to stand out as critical, creative and enquiring learners who are capable, flexible and work ready, and responsible, ethical and engaged citizens.

Attribute	Brief Description	Focus
Knowledge, skills and competence	Students will enhance their knowledge and skills in the design and implementation decisions that affect the experience of users working with IT and computer systems.	High
Critical, creative and enquiring learners	Through the use of regular critiques and analyses of existing and upcoming UX and UI, students will develop the capacity to question the choices made by UX and UI designers, to investigate the context behind existing standards and conventions, and to look beyond their current experience for solutions to problems. This requires developing a deep level of critical self-reflection and creative intelligence to identify both extant and non-extant personal knowledge, which is an important skill for life-long learning.	High
Capable, flexible and work ready	Students will be expected to consider and recognise different ways of being throughout their work in this course, reflecting on how UX and UI designs affect the personal experience of people with different abilities, genders, experiences, races, cultures, and languages. These are life-long intellectual skills that will make students highly capable, flexible and ready for work.	High
Responsible, ethical and engaged citizens	The UX of a system includes the ways the system impacts the identity, privacy, security, safety and personal freedoms of users. Students will consider how each of these is affected by the choices of system and UX designers.	High

Learning Tasks and Assessment

Learning Outcomes Assessed	Assessment Task	Assessment Type
K1, K3, S1, S2	Record and comment on interactions with computer and IT systems.	Weekly journal or laboratory exercises
K3, K4, S1, S2, S3	Perform UX testing of an IT system, including recommendations.	Individual Report
K1, K4, S3, A1	Design and implement a user interface to meet a set of features and requirements.	Individual Practical Project
K1, K2, K4	Attend lectures, read course content, summarize theoretical aspects of the course.	Examination(s)

The following tasks will be graded.

Task	Released	Due	Weighting
Weekly activity: Online journals and participation	Week 1	Various	10.0%
Test: Form design	Week 5	In timetabled tutorial (Week 5)	15.0%
Assignment: System Evaluation	Week 3	Mon, May 25, 2020 - 17:00 (Week 11)	25.0%
Examination	Exam period	End of exam	50.0%

Task 1: Online journals and participation

- Purpose: This task is a weekly activity, it monitors and assesses students` study progress and understanding of course materials.
- Learning outcomes assessed: K1, K3, S1, S2.
- Requirements: Every student is requred to post answers (around 250 words) to at least one selected question related to the weekly topics and response (around 100 words) to at least one of others` postings on the weekly forums. The weekly questions are either from the lecture or the tutorial of that particular week.
- Assessed by: Lecturer/Tutor on week 6 & 12.
- Submission: Post to the weekly online forums via Moodle.
- Feedback: marks in fdlMarks, feedback via Moodle.

Task 2: Form design

- Purpose: This task tests students` understanding of the theories and principles studied in the course to date and apply these to the design of a form.
- Learning outcomes assessed: K1, K4, S3, A1.
- Requirements: Students need to design a form for a given e-business scenario.
- Assessed by: Lecturer/Tutor on week 5 tutorial time. Online students do it at the same tutorial time unless approved for different time.
- Submission: via Moodle.
- Feedback: marks in fdlMarks, feedback via Moodle.

Task 3: Assignment: System Evaluation

- Purpose: This assignment assesses students` capability on how to design and conduct a usability evaluation, how to interpret the results to improve usability and how to report results and write an evaluation report.
- Learning outcomes assessed: K3, K4, S1, S2, S3.
- Requirements: A report of 3,000-5,000 words and a 10mins audio/video presentation.
- Assessed by: Marker.
- Submission: via Moodle.
- Feedback: marks in fdlMarks, feedback via Moodle.

Task 4: Exam

- Purpose: Test students` understanding of key theories and concepts taught in the course.
- Learning outcomes assessed: K1, K2, K4.
- Requirements: Review all lectures.
- Assessed by: Marker.
- Submission: In timetabled venue.
- Results: marks in fdlMarks.

Recommended time per learning activity

Students should be aware that a course’s class time is only a small component of their expected learning activities. Students are expected to spend approximately 150 hours (300 hours if 30 credit points) studying this course in order to have a reasonable opportunity to satisfactorily meet the learning outcomes. The following table is a suggested breakdown of this time on the learning activities and represents the recommended minimum for each of these activities.

Learning Activity	Description	Hours
Lectures and tutorials	4 hours per week for 12 weeks	48

Learning Activity	Description	Hours
Reading of Weekly Resources, Additional Learning Activities	2.5 hours per week for 12 weeks	30
Weekly online journals and participation	Approximately 1 hour per week	11
Form design	Around 9 hours preparation and 2 hours test	11
Assignment: System Evaluation	Approximately 25 hours	25
Final Exam Study	Approximately 2 hours per 12 lectures to study	25
	Total:	150

Submission and Return of Student Work

Task 1: Post to online forums
Task 2: via Moodle
Task 3: via Moodle

Final Exam

The final exam in this course will take place in the end of term exam period. It will be a 2 hours exam and students will **NOT** be permitted to take in any materials.

Closing the Loop / Student Feedback

The course is newly designed and was offered last year, there is no issue with it.

Assessment Criteria

In order to receive a passing grade in this course, students must receive an overall passing mark in the combined result of all assessment tasks.

Topics Assessed

All topics covered during this course are subject to assessment.

Assistance with Online Submission

Students are often asked to submit assessments online. Here are a few useful links that introduce students to the Turnitin software:

- About Turnitin
- Student Guidance on Turnitin
- Student Turnitin Access 2020 (Moodle Support Shell)

Special Consideration

If students are adversely affected by life circumstances a discretionary assessment extension of up to five University working days for one assessment task may be granted at the discretion of the tutor, lecturer, or course coordinator (dependent on faculty process) upon a direct request by the student via the Discretionary Assessment Extension form.
However if a student has experienced or encountered some form of disadvantage or impediment (medical reasons; hardship/trauma; compassionate grounds; other significant cause) in more than one course and

requires more than five working days extension, then they may apply for Special Consideration.
For further information on Discretionary Assessment Extensions and Special Consideration, including access to the policy, procedures or associated forms, see
http://federation.edu.au/current-students/essential-info/administration/special-consideration

Available Grades

A list of the available grades, a description of the corresponding required student performance and the required percentages for the Course is given in the University Handbook.
https://federation.edu.au/students/essential-info/administration/exams/results The Course Coordinator may standardise raw marks before allocating grades.

Academic Integrity

Plagiarism is the presentation of the expressed thought or work of another person as though it is one's own without properly acknowledging that person.
Students must not allow other students to copy their work and must take care to safeguard against this happening. In cases of copying, normally all students involved will be penalised equally; an exception will be if the student can demonstrate the work is their own and they took reasonable care to safeguard against copying. Plagiarism is a serious offence. Please refer to the following documents:

- Statute 6.1: Student Discipline
- Regulation 6.1: Student Discipline
- Regulation 6.1.1: Plagiarism

Academic Regulations

Supplementary information concerning teaching, learning, and assessment may be provided from time to time in response to unforeseen circumstances. This may include changes in times or location of classes, order of the schedule or due dates for assignments. Announcement of these matters in classes and placement of a notice on the course Moodle page shall be deemed to be official notification. FedUni has a range of educational policies, procedures and guidelines, which you can find at
http://policy.federation.edu.au/category_list.php?catalogue_id=115

Student Support

The University provides many different kinds of services to help you gain the most from your studies. You can see the list of Student Services contacts at http://federation.edu.au/students#Assistance_support_and_services
Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. The role of the DLU is to support the development of a learning and working environment that maximise participation in University life by students with a disability

Learning Management System

This course makes use of Moodle to support your learning. You can access Moodle from the FedUni home page or at https://moodle.federation.edu.au/login/index.php If you do not have access for this course you should notify your course co-ordinator immediately

Late Assignment

For all assessment items handed in after the official due date without an agreed extension, a 10% penalty will

be applied to the total mark for each day (or part thereof) late after the due date (including weekends and public holidays).

Exam Eligibility

To be eligible to sit for the examination a student must have undertaken and submitted at least one prior assessment task (worth more than 10%) for this Course.

Presentation of Academic Work

https://federation.edu.au/current-students/learning-and-study/online-help-with/guides-to-your-assessments

Materials

Reading

The following is a recommended textbook (not required):

B. Shneiderman and C. Plaisant et al, Designing the User Interface: Strategies for Effective Human-Computer Interaction, 6th Edition, Pearson, 2017, ISBN-13:9780134380834.

References:

Steve Krug. (2014). *Don`t make me think, revisited a common sense approach to Web usability.* New Riders.

Russ Unger. (2009). *A project guide to UX design : for user experience designers in the field or in the making.* New Riders.

Jesse James Garrett. (2011). *The elements of user experience : user-centered design for the Web and beyond.* New Riders.

Mike Kuniavsky. (2003). *Observing the user experience : a practitioner`s guide to user research.* Morgan Kaufmann.

Jeff Rubin, Dana Chisnell. (2008). *Handbook of usability testing : how to plan, design, and conduct effective tests.* Wiley .

Donald A Norman. (2013). *The design of everyday things.* Basic Books.

eBook / Online

Steve Krug. (2014). *Don`t make me think, revisited a common sense approach to Web usability.* New Riders. eBook site

Note that some material in lectures, assignments and other resources provided to students may contain direct quotations from the text book(s) and references listed.

Sequence

The following is an **approximate** guide to the sequence of topics in this course.

Week(s)	Topic(s)
1-3	Introduction; Psychological theories of design; User interface design
4-5	Design patterns; UX and AI techniques

Week(s)	Topic(s)
6-8	Usabilty testing; Evaluation and ethics; Data gathering and visualisation
9-11	UI and UX for the web; User info design; Design for emerging and small devices
12	Exam preparation

Adopted Reference Style

APA

Professional Standards / Competencies:

Skills Framework for the Information Age (SFIA): Initial

Attribute	Assessed	Level
1 Strategy and architecture		
1.4 Technical strategy and planning		
1.4.1 Emerging technology monitoring	Yes	3
3 Solution development and implementation		
3.1 Systems development		
3.1.2 Data analysis	Yes	3
3.1.3 Systems design	No	3
3.1.10 Information content authoring	Yes	3
3.2 Human factors		
3.2.1 User experience analysis	Yes	3
3.2.2 Ergonomic design	Yes	3
3.2.3 User experience evaluation	Yes	3
3.2.4 Human factors integration	Yes	3

Australian Computer Society - Core Body of Knowledge: 2016 accreditation

Attribute	Assessed	Level
Essential Core ICT Knowledge		
ICT Professional Knowledge		
Ethics	Yes	Application
Professional expectations	Yes	Application
Interpersonal communications	Yes	Application
ICT Problem Solving		

Abstraction	Yes	Application
Design	Yes	Application
General ICT Knowledge		
Technology Resources		
Data & information management	Yes	Analysis
Technology Building		
Human Factors	Yes	Evaluation
Systems Development	Yes	Evaluation
Systems Acquisition	Yes	Evaluation
ICT Management		
IT Project Management	Yes	Application