Course Code:	1805ICT
Course Name:	Human Computer Interaction
Semester:	Trimester 2, 2018
Program:	Diploma of Information Technology
Credit Points:	10
Course Coordinator:	Dr Rob Baltrusch
Document modified:	18th June 2018

Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.

Dr Rob Baltrusch   rob.baltrusch@staff.griffithcollege.edu.au

Staff Consultation

Your lecturer/tutor is available each week for consultation outside of normal class times. Times that your lecturer/tutor will be available for consultation will be given in the first week of lectures. A list of times and rooms will be published on the Griffith College Portal under the "myTimetable" link.

Prerequisites

There are no prerequisites for this course

Brief Course Description

Human Computer Interaction (HCI), is a first year course which provides an introduction to the principles and practices of effective Human Computer Interaction. We will explore the origins of HCI and the theories and frameworks that form the fundamentals of the discipline. We'll then look at the practical tools and techniques that you can use to develop technology that embodies best practice in HCI - a positive user experience, and a high level of usability within your technology. You will have the opportunity to apply HCI practices to a 'real world' problem and develop a design brief for a client. You will also learn how to apply these practices to different problem situations and various technology contexts, including emerging technologies.

Rationale

A key component to the discipline of Information Technology is the understanding and the advocacy of the user in the development of IT applications and systems. IT graduates must develop a mind-set that recognizes the importance of users and organisational contexts and employ user-centred methodologies in the development, evaluation, and deployment of IT applications and systems. This requires graduates to develop knowledge of HCI including user and task analysis, human factors, ergonomics, application domains, user interface development tools and Graphical User Interface (GUI) frameworks, accessibility standards, and cognitive psychology.

Aims

The extent to which people will interact with a digital system depends not only on the usefulness of the system but also on experience of the person's interaction with the system. Now more than ever before people are interacting with digital systems for reasons ranging from entertainment to 'mission critical' activities. This course thus aims to equip students with the foundational theoretical knowledge, practical skills and experiences of process required to create and evaluate human interaction with computing systems.

Learning Outcomes

Upon successful completion of this course students will be able to:

1 Understand the relationship between HCI models, theories, and frameworks, and their application to digital interaction, interfaces and products;
2 Understand the differences in designing and developing technology for different application environments and digital media, including desktop and mobile, and emerging technologies such as wearable, and virtual reality systems.
3 Perform usability evaluations for existing technology applications by using the appropriate performance and preference metrics; Analyse usability testing results and recommend changes.
4 Apply HCI models, theories and processes to design an interactive application for an industry context.

Texts and Supporting Materials

Details of your Recommended Learning & Required Learning Resources are available from the course site. There is no prescribed text book for this course.

Recommended Reading

I. S. MacKenzie, "Human-Computer Interaction : An Empirical Research Perspective", Elsevier Science, 2012.

J. M. Carroll, "HCI Models, Theories, and Frameworks : Toward a Multidisciplinary Science", Elsevier Science, 2003.

Organisation and Teaching Strategies

This course consists of weekly lectures, tutorials, and workshops. Lectures will be used to coordinate the course content. Tutorials will focus more on reinforcing theoretical concepts, and workshops will focus on practical skills.

Class Contact Summary

Attendance

Your attendance in class will be marked twice during a four hour class. To receive full attendance, you must be present in the classroom on both occasions. Therefore, you are encouraged to attend and participate in all classes throughout the semester.

Participation in Class

You are expected to actively participate in classes each week.

Consultant Times

Attendance during consultation times is optional but you are encouraged to use this extra help to improve your learning outcomes.

Course Materials

Lecture notes will be made available to you on the course site linked from the student portal and you are advised to print these out before each class to help guide you in your study program. You are expected to bring these lecture notes with you to each class so that extra notes can be added. You are also expected to bring your text book and calculator to each class.

Independent Learning

You are expected to reinforce your learning from class time by undertaking sufficient independent study {approximately 6 hours per week outside of class time} so that you can achieve the learning outcomes of the course.

You are expected to spend 1 hour per credit point per week on course related activities which include attending lectures, tutorials, workshops, reading the recommended texts / lecture notes, research and revision.

Program Progression

You are reminded that satisfactory Program Progression requires that attendance in classes is maintained at equal to or greater than 80%, and that GPA is maintained at equal to or greater than 3.5 [please see Griffith College Policy Library - Program Progression Policy - for more information].

Content Schedule

Weekly Teaching Schedule

Week	Topic	Activity	Readings
1	**Introduction (Workshop):** In this workshop we will discuss the assessment for the semester, and have a practical exercise based on the ePortfolio.	Workshop	See course site
	Introduction (Lecture): This lecture will introduce you to the HCI course, and provide an overview of the history of HCI	Lecture	See course site
2	**Human Factors (Workshop):** We will discuss human factors, and conduct an	Workshop	See course site

	exercise applying these to a real world example.		
	Human Factors (Lecture): What do we mean by 'interaction', and what are the human factors that affection interaction with computers? We will look at people, organisations, user and task analysis, and user research.	Lecture	See course site
3	**Usability (Workshop):** We will discuss usability, and conduct an exercise analysing usability in a real world example.	Workshop	See course site
	Usability (Lecture): What is 'usability', and what does it mean for the design and development of technology?	Lecture	See course site
4	**Usability Guidelines (Workshop):** We will discuss design principles, and conduct an exercise applying these to a real world example.	Workshop	See course site
	Usability Guidelines (Lecture): An outline of a set of principles and guidelines for designing effective HCI.	Lecture	See course site
5	**Design Tools (Workshop):** We will discuss Design Tools, and conduct an exercise applying these to a real world example.	Workshop	See course site
	Design Tools (Lecture): Building on Design Guidelines, we'll now look at some specific design tools.	Lecture	See course site
6	**Design Process (Workshop):** We will discuss UCD and conduct an exercise applying it to a real world example.	Workshop	See course site
	Design Process (Lecture): Core to the approach we're taking in this course is User Centred Design (UCD) - design of technology that focuses on the user, and involves the user throughout the design and development process.	Lecture	See course site
7	**Usability Evaluation (Workshop):** We will discuss evaluation and testing, and conduct an evaluation session using a real world example.	Workshop	See course site
	Usability Evaluation (Lecture): Evaluation and testing means confirming that your technology works as you intended and that it meets the needs and	Lecture	See course site

	expectations of the people who will need to use it.		
8	**Accessibility (Workshop):** We will discuss what accessibility means, and conduct an accessibility evaluation.	Workshop	See course site
	Accessibility (Lecture): We are looking at the needs of a specific set of people who will use the technology that you design, and how you must design and develop with their needs in mind.	Lecture	See course site
9	**Domains (Workshop):** We will discuss the different domains and their relationship with HCI. We will complete a practical exercise exploring different domains.	Workshop	See course site
	Domains (Lecture): HCI applies to a range of different situations and technologies. What interactive environments exist, and what does this mean for us?	Lecture	See course site
10	**Emerging Technology (Workshop):** We will discuss emerging technology, and conduct an exercise exploring HCI with emerging technology.	Workshop	See course site
	Emerging Technology (Lecture): What do you do when you need to design and develop with new and emerging technologies?	Lecture	See course site
11	**Theoretical Frameworks (Part 1) (Workshop):** We will discuss the first set of theoretical frameworks for HCI, and conduct an exercise applying these to a real world example.	Workshop	See course site
	Theoretical Frameworks (Part 1) (Lecture): HCI is built on a range of theoretical frameworks and principles, and during weeks 11 and 12 we will look at the theoretical constructs that underlie HCI.	Lecture	See course site
12	**Theoretical Frameworks (Part 2) (Workshop):** We will discuss the second set of frameworks, and conduct an exercise applying these to a real world example.	Workshop	See course site
	Theoretical Frameworks (Part 2) (Lecture): This continues the discussion from week 11, looking at HCI frameworks in detail.	Lecture	See course site

Assessment

This section sets out the assessment requirements for this course.

Summary of Assessment

Item	Assessment Task	Weighting	Relevant Learning Outcomes	Due Date
1	*Portfolio - evidence* Design Portfolio	50%	1, 2, 3, 4	Weeks 1 - 11
2	*Assignment - Written Assignment* Design Work	30%	3, 4	Weeks 5 - 11
3	*Exam - practical/laboratory/clinical* Design Challenge	20%	1, 2, 3, 4	Week 12

Assessment Details

Assessment 1:
Title: Design Portfolio
Type: Portfolio - evidence
Learning Outcomes Assessed: 1, 2, 3, 4
Due Date: Weeks 1 - 12
Weight: 50%
Marked out of: 100

Task Description:
This trimester you will need to develop an ePortfolio of your work in Human Computer Interaction. The Design Portfolio is worth 50% of your total mark. Your Design Portfolio will include electronic evidence of your work and your professional progress. It will show your application of Human Computer Interaction concepts through the inclusion of your design work for a real world project and your personal reflections on your own progress. Your Design Portfolio will showcase your skills, not just to the teaching team, but also to potential employers.

Criteria & Marking:
Portfolio evidence will consist of progressive development of a design brief addressing a project scenario.

Marks will be allocated for accuracy, level of detail, and for the portfolio being up-to-date

Your submission of your ePortfolio is weighted as follows:

- Week 6 – 25% (formal online submission)
- Week 12 – 25% (formal online submission)

You will receive feedback on your Design Portfolio after your first submission, and you will need to revise based on this feedback.

Detailed marking criteria for your Design Portfolio will be provided through the Course Site.

This assessment item:
- is a school based activity
- is an individual activity
- includes a self-assessment activity
- does not have a resubmission provision

Assessment 2:
Title: Design Work
Type: Assignment - Written Assignment
Learning Outcomes Assessed: 3, 4
Due Date: Weeks 5 - 11
Weight: 30%
Marked out of: 100

Task Description:
This trimester you will work to develop a Design Brief addressing a particular design scenario from an industry client. You will present most of your work individually through your ePortfolio, supported by weekly exercises conducted in teams within your weekly workshop. Your weekly team Design Work will document your progress with supporting exercises analysing the design scenario and the people who will need to interact with your design, and the development of the designs themselves. In the future, this will help you demonstrate your HCI understanding and skills, not just to the teaching team, but also to potential employers.

Criteria & Marking:
Full marking criteria and guides are provided on the course site.

Your finished Design Work will be submitted through the course site each week, for 30% of your mark.

Your finished Design Work will be submitted through the course site in each week, for 30% of your mark.

Submission: Submitted online through the course site

This assessment item:
- is a school based activity

- is a group activity
- includes a self-assessment activity
- does not have a resubmission provision

Assessment 3:
Title: Design Challenge
Type: Exam - practical/laboratory/clinical
Learning Outcomes Assessed: 1, 2, 3, 4
Due Date: Week 12
Weight: 20%
Marked out of: 100
Duration: 120 minutes
Format: Open Book
Task Description:

This task is a team exercise that requires you to apply knowledge from your work over the semester to address a design challenge. The design challenge will take place in the workshop during week 12.

Criteria & Marking:

Full criteria will be provided on the course.

The Design challenge is a workshop exercise. You will be provided with an industry scenario, and you will need to apply the material covered throughout the semester to address the scenario and produce a design for a piece of technology that would solve the scenario.

The challenge will be conducted in teams.

This assessment item:

- is a school based activity
- is an individual activity
- does not include a self assessment activity
- does not have a re-attempt provision
- is a proctored examination

Submission and Return of Assessment Items

Normally you will be able to collect your assignments in class within fourteen [14] days of the due date for submission of the assignment.

Retention of Originals

You must be able to produce a copy of all work submitted if so requested. Copies should be retained until after the release of final results for the course.

To apply for an extension of time for an assignment, you must submit an Application for Extension of Assignment form to your teacher at least 24 hours before the date the assignment is due. Grounds for extensions are usually: serious illness, accident, disability, bereavement or other compassionate circumstances and must be able to be substantiated with relevant documentation [e.g. Griffith College Medical Certificate]. Please refer to the Griffith College website - Policy Library - for guidelines regarding extensions and deferred assessment.

Assessment Feedback

Marks awarded for assessment items will also be available on the on-line grades system on the Student Website within fourteen [14] days of the due date.

Feedback on lab milestones will be given in class when the milestone is being marked.

Feedback on the mid-semester quiz will be provided with a breakdown on which multiple choice questions were answered correctly within 2 weeks of the assessment date. When the results are available the correct answers will be given in the lecture.

Feedback on assignments 1 and 2 will be provided electronically as a mark breakdown and comments within 2 weeks of the submission due date.

Generic Skills

Griffith College aims to develop graduates who have an open and critical approach to learning and a capacity for lifelong learning. Through engagement in their studies, students are provided with opportunities to begin the development of these and other generic skills.

Studies in this course will give you opportunities to begin to develop the following skills:

Generic Skills	Taught	Practised	Assessed
Written Communication		Yes	Yes
Oral Communication		Yes	
Information Literacy		Yes	Yes
Secondary Research		Yes	Yes
Critical and Innovative Thinking	Yes	Yes	Yes
Academic Integrity	Yes	Yes	

Self Directed Learning		Yes	
Team Work		Yes	Yes
Cultural Intelligence		Yes	
English Language Proficiency		Yes	

Additional Course Generic Skills

Additional Course Information

All course material is available on the course website located at griffith.tech

Teacher and Course Evaluations

Your feedback is respected and valued by your lecturers and tutors. You are encouraged to provide your thoughts on the course and teaching, both positive and critical, directly to your lecturer and tutor or by completing course and lecturer evaluations via Griffith College's online evaluation tool whenever these are available.

Academic Integrity

Griffith College is committed to maintaining high academic standards to protect the value of its qualifications. Academic integrity means acting with the values of honesty, trust, fairness, respect and responsibility in learning, teaching and research. It is important for students, teachers, researchers and all staff to act in an honest way, be responsible for their actions, and show fairness in every part of their work. Academic integrity is important for an individual's and the College's reputation.

All staff and students of the College are responsible for academic integrity. As a student, you are expected to conduct your studies honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is considered a breach of academic integrity and is unacceptable.

Some students deliberately breach academic integrity standards with intent to deceive. This conscious, pre-meditated form of cheating is considered to be one of the most serious forms of fraudulent academic behaviour, for which the College has zero tolerance and for which penalties, including exclusion from the College, will be applied.

However, Griffith College also recognises many students breach academic integrity standards without intent to deceive. In these cases, students may be required to undertake additional

educational activities to remediate their behaviour and may also be provided appropriate advice by academic staff.

As you undertake your studies at Griffith College, your lecturers, tutors and academic advisors will provide you with guidance to understand and maintain academic integrity; however, it is also your responsibility to seek out guidance if and when you are unsure about appropriate academic conduct.

In the case of any allegation of academic misconduct made against a student he or she may request the guidance and support of a Griffith College Student Learning Advisor or Student Counsellor.

Please ensure that you are familiar with the [Griffith College Academic Integrity Policy](#); this policy provides an overview of some of the behaviours that are considered breaches of academic integrity, as well as the penalties and processes involved when a breach is identified.

For further information please refer to the Academic Integrity Policy on the Griffith College website – Policy Library.

Risk Assessment Statement