

CvSU Vision

The premier university in historic Cavite recognized for excellence in the development of globally competitive and morally upright individuals.



Republic of the Philippines
CAVITE STATE UNIVERSITY
Silang Campus

Biga I, Silang, Cavite

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CvSU Mission

Cavite State University shall provide excellent, equitable and relevant educational opportunities in the arts, science and technology through quality instruction and relevant research and development activities.

It shall produce professional, skilled and morally upright individuals for global competitiveness.

DEPARTMENT OF INFORMATION TECHNOLOGY

COURSE SYLLABUS
1st Semester, AY 2021-2022

Course Code	ITEC 101	Course Title	Introduction to Human-Computer Interaction		Type	Lecture ✓ Laboratory ✓	Credit Units	5
Course Description	The course focuses on the analysis of different user populations with regard to their abilities and characteristics for using both software and hardware products. Evaluation of the design of existing user interfaces based on the cognitive models of target user is also covered in the course.							
Pre-requisites	DCIT 21		Course Schedule			Lecture BSIT 3A THU 1:00-3:00PM BSIT 3B WED 11:00AM-1:00PM BSIT 3C TUE 8:00-10:00AM Laboratory BSIT 3A TUE 1:00-4:00PM BSIT 3B THU 9:00-12:00PM BSIT 3C THU 1:00-4:00PM		
Core Values	<p>Students are expected to live by and stand for the following University tenets:</p> <p>TRUTH is demonstrated by the student’s objectivity and honesty during examinations, class activities, and in the development of projects.</p> <p>EXCELLENCE is exhibited by the students’ self-confidence, punctuality, diligence, and commitment in the assigned tasks, class performance and other course requirements.</p> <p>SERVICE is manifested by the students’ respect, rapport, fairness, and cooperation in dealing with their peers and members of the community.</p> <p>In addition, they should exhibit love and respect for nature and support for the cause of humanity.</p>							

Goals of the Campus	The Campus shall endeavor to achieve the following goals 1. Develop a highly competent human resource by ensuring an enriching environment to promote professional growth, career advancement for faculty, staff and students. 2. Provide quality instruction and development- oriented researches in cooperation with various institutions for the benefits of the community. 3. Respond effectively to the needs, demands and requirements of the community to demonstrate the University’s mission of relevance and leadership. 4. Institutionalize quality assurance policies to keep abreast with national and international standards of excellence to realize competitiveness in the campus products and services.							
Objectives of the Department	The Department of Information Technology aims to produce graduates who: 1. are sufficient in designing and developing computing solutions; 2. conducts relevant researches and development activities in the field of information technologies and allied fields; 3. promotes the development and transfer appropriate information technology; 4. practices the principles of good governance and professional and ethical standards in the work place; 5. establishes strong linkages with non-governmental organizations, other government entities and the basic sector for the realization of common goals.							
Program Educational Objectives (based on the program CMO)								
The BSIT program aims to produce graduate who can: 1. apply knowledge of utilization of both hardware and software technologies involving planning, installing, customizing, operating, managing and administering, and maintaining information technology infrastructure that provide computing solutions to address the needs of an organization; 2. conduct relevant researches and extension program activities in the field of information technology; 3. promote the development and transfer of appropriate information technology; 4. promote environmental preservation and protection on projects and enterprises related to information technology; and 5. become morally upright IT professionals with primary and secondary job roles.								
Program/Student Outcomes (based on the program CMO)				Program Educational Objectives Code (based on the program CMO)				
				1	2	3	4	5
The students should:								
a	Apply knowledge of computing, science, and mathematics appropriate to the discipline			✓	✓	✓	✓	✓

b	Understand best practices and standards in their application	✓	✓	✓	✓	✓	
c	Analyze complex problems, and identify and define the computing requirements appropriate to its solution	✓	✓	✓	✓		
d	Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems	✓	✓	✓	✓		
e	Design, implement and evaluate computer-based systems, processes, components, or programs to meet desired needs and requirements under various constraints	✓	✓	✓	✓		
f	Integrate IT-based solutions into the user environment effectively	✓	✓	✓	✓		
g	Apply knowledge through the use of current techniques, skills, tools, and practices necessary for the IT profession	✓	✓	✓	✓	✓	
h	Function effectively as a member or leader of a development team recognizing the different roles within a team to accomplish a common goal	✓	✓				✓
i	Assist in the creation of an effective IT project plan	✓	✓	✓	✓		
j	Communicate effectively with the computing community and with society at large about complex computing activities through logical writing, presentations, and clear instructions.	✓	✓				✓
k	Analyze the local and global impact of computing information technology on individuals, organizations, and society.	✓	✓	✓	✓		
l	Understand professional, ethical, legal, security and social issues and responsibilities in the utilization of information technology.	✓					✓
m	Recognize the need for and engage in planning self-learning and improving performance as a foundation for continuing professional development.	✓	✓				

Course Outcomes and Relationship to Student Outcomes

Program Outcomes Addressed by the Course After completing this course, the students must be able to:	Program/Student Outcomes Code												
	a	b	c	d	e	f	g	h	i	j	k	l	m
1. disseminate the course Mission, Goals, and Objectives		E			I		E				I		I
2. demonstrate an understanding of guidelines, and theories influencing human computer interaction	I	E	E			I		I		I			E

3. recognize how a computer system may be modified to include human diversity	I	I			E	I	E		I	I		E	
4. select an effective style for specific application	D		E		E	D		E	E			I	
5. design mock-ups and carry out a user and expert evaluation interfaces	I				E		E		D	E			
6. carry out the steps of experimental design, usability and experimental testing, and evaluation of human-computer interaction systems	I	E		I	I	E				D			
7. use the information sources available, and be aware of the methodologies and technologies supporting advances of HCI	I	I	E	E	I		E						

*Level: I-Introductory E- Enabling D-Demonstrative

COURSE COVERAGE

Week No.	Intended Learning Outcomes (ILO)	Topic	Teaching and Learning Activities (TLA)	Mode of Delivery	Resources Needed	Outcomes-based Assessment (OBA)	Due Date of Submission of Output
1	After the completion of the chapter, students will be able to: 1. attain the university VMGO, as well as the campus and department objectives; 2. develop gender awareness, knowledge, and skills; and 3. develop positive perceptions, attitudes, and behaviors in relation to gender.	I. Orientation a) Vision, Mission, Goals, and Objectives of the university, campus and department b) Subject guidelines and policies c) Classroom Policies and Course Requirement(s) d) Overview of the Course e) Expectation Setting	Orientation Class Power-point	Face to Face Class	Student Handbook Course Syllabus Data Connection Laptop Learning Guide	Recitation	Feb 13

2	<p>After the completion of the chapter, students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the concept of HCI. 2. Determine the broad and specific functions of HCI 3. Difference between the HCI1 and 2 . 	<p>II. Introduction to Advanced HCI</p> <ul style="list-style-type: none"> • Definition and Scope of Advanced HCI • Differences Between HCI 1 and HCI 2 • Human-Centered Design vs. System-Centered Design • Evolution of HCI and Emerging Trends 	<p>Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Laboratory Activity1</p>	<p>Face to Face Class</p>	<p>Notebook Pen Mobile Phone/Laptop Presence <i>Human-Computer Interaction – Alan Dix (Chapter 1)</i></p>	<p>Recitation and Participation of the class</p>	<p>Feb 18</p>
3	<p>After the completion of the chapter, students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the UCD. 2. Identify the methods. 	<p>III. User-Centered Design & Research Methods</p> <ul style="list-style-type: none"> • User-Centered Design (UCD) Principles • Methods of User Research (Surveys, Interviews, Observations) • Creating User Personas and Journey Maps 	<p>Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz</p>	<p>Face to Face Class</p>	<p>Notebook Pen Mobile Phone/Laptop Presence <i>Human-Computer Interaction: An Empirical Research Perspective – I. Scott MacKenzie (Chapter 3)</i></p>	<p>Recitation and Participation of the class</p>	<p>Feb 25</p>
4	<p>After the completion of the chapter, students will be able to:</p> <ol style="list-style-type: none"> 1. Identify the 10 usability heuristics 2. UX metrics 3. Cognitive Walkthroughs 	<p>IV. Usability Principles & Heuristic Evaluation</p> <ul style="list-style-type: none"> • Nielsen's 10 Usability Heuristics • UX Metrics and Evaluation Methods • Cognitive Walkthroughs & Heuristic Evaluation 	<p>Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Laboratory Activity2</p>	<p>Face to Face Class</p>	<p>Notebook Pen Mobile Phone/Laptop Presence <i>Designing the User Interface – Ben Shneiderman (Chapter 4)</i></p>	<p>Recitation and Participation of the class</p>	<p>March 4</p>

5	After the completion of the chapter, students will be able to: 1. Identify the overall design process. 2. Explain the meaning of interface options.	V. Interaction Design & Prototyping <ul style="list-style-type: none"> Interaction Models (Direct, Indirect, Multi-Touch) Wireframing and Prototyping (Low-Fidelity vs. High-Fidelity) Storyboarding and Scenario-Based Design 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Laboratory Activity3	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>Don't Make Me Think</i> – Steve Krug (Chapter 5)	Recitation and Participation of the class	March 11
6	After the completion of the chapter, students will be able to: 1. Identify the overall design process. 2. Explain the meaning of interface options.	VI. Information Architecture & Navigation Design <ul style="list-style-type: none"> User Flow Diagrams & Site Maps Designing Effective Navigation Systems Card Sorting and IA Testing 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Exercise 1	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>The Elements of User Experience</i> – Jesse James Garrett (Chapter 2)	Recitation and Participation of the class	March 18
MIDTERM EXAMINATION							
8	After the completion of the chapter, students will be able to: 1. Identify the human perception and UI 2. Apply the different UI layer.	VII. Cognitive Models in HCI <ul style="list-style-type: none"> Human Perception, Attention & Memory in UI Design Hick's Law, Fitts' Law, and Cognitive Load Theory Mental Models & Affordances in UX 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Exercise 2	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>The Design of Everyday Things</i> – Don Norman (Chapter 3)	Recitation and Participation of the class	April 1
9	After the completion of the chapter, students will be able to:	VIII. Usability Testing & Midterm Project Proposal <ul style="list-style-type: none"> Usability Testing Methods (A/B Testing, Eye Tracking) 	Face to face class Power-point Laboratory Manual	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence	Recitation and Participation of the class	April 8

	1. Know the different frameworks and toolkits.	<ul style="list-style-type: none"> Conducting and Analyzing User Feedback 	Pre-test Quiz Post-test Quiz Laboratory Activity 4		<i>Rocket Surgery Made Easy</i> – Steve Krug (Chapter 2)		
10	After the completion of the chapter, students will be able to: 1. Identify the cognitive in terms of visual, auditory, motor.	IX. Accessibility & Inclusive Design <ul style="list-style-type: none"> Introduction to Web Accessibility (WCAG 2.1) Designing for People with Disabilities (Visual, Auditory, Motor, Cognitive) ARIA Roles & Semantic HTML Color Contrast & Keyboard Navigation Best Practices 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Exercises 3	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>A Web for Everyone</i> – Sarah Horton	Recitation and Participation of the class	April 15
11	After the completion of the chapter, students will be able to: 1. Understand the principle of mobile UX/UI design 2. Create a responsive UI for both mobile and Web	X. Mobile HCI & Responsive Interfaces <ul style="list-style-type: none"> Principles of Mobile UX/UI Design Responsive Web Design (RWD) & Adaptive Design Mobile Gesture Interactions (Swipe, Pinch, Long Press) Testing for Mobile Usability 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Laboratory Activity 5	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>Rocket Surgery Made Easy</i> – Steve Krug (Chapter 2)	Recitation and Participation of the class	Jan 15
12	After the completion of the chapter, students will be able to: 1. Understand the augmented reality and VR	XI. Augmented Reality (AR) & Virtual Reality (VR) in HCI <ul style="list-style-type: none"> AR/VR Basics: Differences & Applications in HCI UX Challenges in AR/VR Interfaces Designing User-Friendly AR/VR Interactions 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Laboratory Activity 6	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>Designing Immersive 3D Experiences</i> –	Recitation and Participation of the class	May 6

	2. Application of HCI using AR and VR	<ul style="list-style-type: none"> • Eye-Tracking & Hand Gesture Recognition in VR 			R. Stuart Langley		
13	After the completion of the chapter, students will be able to: 1. Understand how social collaboration works. 2. Identify the engagement from personal to online	XII. Social & Collaborative Computing <ul style="list-style-type: none"> • Introduction to Social Computing (Social Networks, Online Communities) • User Engagement & Online Collaboration Tools • Ethical & Privacy Concerns in Social UX • Gamification in Social Applications 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Laboratory Activity 7	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>The Psychology of Social Computing</i> – M. Smith & P. Kollock	Recitation and Participation of the class	May 13
14	After the completion of the chapter, students will be able to: 1. Understand the ethical uses of HCI in terms of using of AI, Data privacy.	XIII. Ethics in HCI & Data Privacy <ul style="list-style-type: none"> • Ethical Considerations in HCI (Bias in AI, Dark Patterns, Persuasive Design) • Data Privacy & Security in UI Design • GDPR, CCPA & User Consent Principles • Case Studies on Unethical UX Practices 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Exercise 4	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>Ethics and Technology</i> – Herman Tavani	Recitation and Participation of the class	May 20
15	After the completion of the chapter, students will be able to: 1. Identify the methods of QA.	XIV. Advanced Usability Testing & User Feedback <ul style="list-style-type: none"> • Methods for Gathering & Analyzing User Feedback • A/B Testing, Eye-Tracking, Heatmaps • Iterative Design & Continuous Improvement 	Face to face class Power-point Laboratory Manual Pre-test Quiz Post-test Quiz Laboratory Activity 8	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence <i>Lean UX</i> – Jeff Gothelf	Recitation and Participation of the class	May 27

		<ul style="list-style-type: none"> Designing Effective User Surveys & Interviews 					
16-18	After the completion of the chapter, students will be able to: 1. Develop an output mobile/web. 2. Test the output of the students.	XIV. Project Presentation <ul style="list-style-type: none"> Students will test their final project. Presenting the Final Output 	Face to face class Project Presentation	Face to Face Class	Notebook Pen Mobile Phone/Laptop Presence	Participation of the class Presentation of Project	June 3

FINAL EXAMINATION

COURSE REQUIREMENTS

Lecture Requirements:

1. Midterm Examination
2. Final Examination
3. Quizzes/Seat works/Recitations
4. Class Reporting/Reaction Paper
5. Assignments
6. Class or Group Project (Term Paper/Project Design/Case Study/Feasibility Study/Culminating Activity/Portfolio)
7. Class Attendance

*All exams must follow a **Table of Specifications (TOS)** and **Rubrics** for evaluation of a student's performance or projects.

GRADING SYSTEM

A. Grading system for 2 units lecture and 1 unit laboratory (i.e. DCIT 21; 3 units; Lec - 2 hrs & Lab - 3 hrs)

Lecture – 60%

Laboratory – 40%

B. Grading system for 1 unit lecture and 2 units laboratory (i.e. DCIT 22; 3 units; Lec -1 hr & Lab - 6 hrs)

Lecture – 40%

Laboratory – 60%

C. Grading system for 2 units lecture and 3 units laboratory (i.e. ELEX 50; 5 units; Lec – 2 hrs & Lab – 9 hrs)

Lecture – 30%

Laboratory – 70%

STANDARD TRANSMUTATION TABLE FOR ALL COURSES

96.7 – 100.0 1.00

93.4 – 96.6 1.25

90.1 - 93.30 1.50

86.7 – 90.0 1.75

83.4 – 86.6 2.00

80.1 – 83.3 2.25

76.7 – 80.0 2.50

73.4 – 76.6 2.75

70.00 – 73.3 3.00

50.0-69.9 4.00

Below 50 5.00

INC Passed the course but lack some requirements.

Dropped If unexcused absence is at least **20%** of the **Total Class Hours**.

Total Class Hours/Semester: (3 unit Lab – 54 hrs; 2 unit Lec – 36 hrs)

(1 unit Lab – 54 hrs; 2 units Lab – 108 hrs; 3 units Lab – 162 hrs)

CLASS POLICIES

A. Attendance

Students are not allowed to have 20% or more unexcused absences of the total face to face class hours; otherwise, they will be graded as “DROPPED”.

B. Classroom Decorum

During face to face mode

Students are required to:

1. wear identification cards at all times;
2. wear face mask at all times;
3. observe physical/social distancing at all times;
4. clean the classroom before and after classes;
5. avoid unnecessary noise that might disturb other classes;

6. practice good manners and right conduct at all times;
7. practice gender sensitivity and awareness inside the classroom; and
8. come to class on time.

During distance mode

Students are required to:

1. sign an honor system pledge;
2. avoid giving or receiving unauthorized aid of any kind on their examinations, papers, projects, and assignments;
3. observe proper netiquette during online activities; and
4. submit take home assignments on time.

C. Examination/ Evaluation

1. Quizzes may be announced or unannounced.
2. Midterm and Final Examinations are scheduled.
3. Cheating is strictly prohibited. A student who is caught cheating will be given a score of "0" for the first offense. For the second offense, the student will be automatically given a failing grade in the subject.
4. Students who will miss a midterm or final examination, a laboratory exercise or a class project may be excused and allowed to take a special exam, conduct a laboratory exercise or pass a class project for any of the following reasons:
 - a. participation in a University/College-approved field trip or activity;
 - b. due to illness or death in the family; and
 - c. due to *force majeure* or natural calamities.

REFERENCES & SUPPLEMENTARY READINGS

References:

A. Reference Books

1. Gerard Jounghyun Kim (2015) Human-Computer Interaction. Fundamentals and Practice ISBN-13 978-1-4822-3390-2
2. Markopoulos, P., Martens, J.-B., Malins, J., Coninx, K., Liapis, A. (Eds.) (2016) Collaboration in Creative Design ISBN 978-3-319-29155-0
3. Jacko, J. (2012) Human Computer Interaction Handbook Third Edition ISBN 978-1-439-82943-1
4. Norman, K. & Kirakowski, J. (2018) The Wiley Handbook of Human Computer Interaction Set ISBN 978-1-118-97613-5

B. Electronic References (E-books/Websites)

1. <https://www.officialgazette.gov.ph/2012/09/12/republic-act-no-10175/>
2. <https://www.privacy.gov.ph/data-privacy-act/>
3. <https://hcibook.com/e3/exercises/>

REVISION HISTORY

Revision Number	Date of Revision	Date of Implementation	Highlights of Revision
001	September 13, 2021	September 20, 2021	Content update, references
002	February 10, 2025	February 12, 2025	Content updated, References

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