INSO 5111 - Course Syllabus

1. General Information:

Alpha-numeric codification: INSO 5111
Course Title: Introduction to Human-Computer Interaction
Number of credits: 3
Contact Period: 3 hours of lecture per week

2. Course Description:

English: Introduction to the principles of human-computer interaction with the objective of developing the skills necessary to design and implement graphical user interfaces (GUI). Topics include: cognitive psychology, human factors, and interaction styles. Practice in designing and evaluating the usability of various graphical user interfaces.

Spanish: Introducción a los principios de interacción entre los seres humanos y las computadoras con el objetivo de desarrollar las habilidades necesarias para el diseño e implantación de interfaces gráficas (GUI). Los temas incluyen: psicología cognoscitiva, factores humanos y estilos de interacción. Práctica en el diseño y evaluación de uso de varias interfaces gráficas.

3. Pre/Co-requisites and other requirements:

Prerequisites: CIIC 4020 or ICOM 4035

4. Course Objectives:

Students will learn how to build ergonomically-centered graphical user interfaces (GUIs) and also learn how humans react to various modalities of computer usage.

5. Instructional Strategies:

☒conference ☐discussion ☒computation ☐laboratory

☐seminar with formal presentation ☐seminar without formal presentation ☐workshop

☐art workshop ☐practice ☐trip ☐thesis ☐special problems ☐tutoring

☐research ☐other, please specify:

6. Minimum or Required Resources Available:

Students will use the Departmental computer laboratories to complete course projects.

7. Course time frame and thematic outline

Outline	Contact Hours
Cognitive psychology	6
Human factors	10
Interaction Styles	10
Task analysis	6
GUI development tools	6
Usability evaluation methods	5
Exams and discussions	2
Total hours: (equivalent to contact period)	45

8. Grading System

☒Quantifiable (letters) ☐ Not Quantifiable

9. Evaluation Strategies

	Quantity	Percent
☒ **Exams**	**2**	**35%**
☒ **Final Exam**	**1**	**25%**
☐ **Short Quizzes**		
☐**Oral Reports**		
☐ **Monographies**		
☐ **Portfolio**		
☒ **Projects**	**1**	**40%**
☐**Journals**		
☐**Other, specify:**		
TOTAL:		**100%**

10. Bibliography:

1. Jeff Johnson, *Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Rules,* Morgan Kaufmann, 2010.
2. Helen Sharp, Yvonne Rogers, and Jenny Preece, *Interaction Design: Beyond Human-Computer Interaction*, 3rd ed., Wiley, 2011.
3. Julie A. Jacko, *Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies, and Emerging Applications*, 3rd ed., CRC Press, 2012.

4. Ben Shneiderman, Catherine Plaisant, Maxine Cohen, and Steven Jacobs. *Designing the User Interface: Strategies for Effective Human-Computer Interaction*, 5th ed., Addison-Wesley, 2009.

11. Course Outcomes

Upon completion of this course the student will be able to:	Program Student Outcomes Impacted
1. Design and conduct user studies to assess user behaviours and preferences in order to design a software application	2
2. Design and conduct usability tests in order to identify potential user interface improvements to a software application	2
3. Understand and apply modern principles, patterns and trends in user interface (UX/UI) design in order to develop highly usable applications	6
4. Create mockups and prototypes of proposed software applications in order to assess their usability and potential user acceptance as early as possible	6

12. According to Law 51

Students will identify themselves with the Institution and the instructor of the course for purposes of assessment (exams) accommodations. For more information please call the Student with Disabilities Office which is part of the Dean of Students office (Office #4) at (787)265-3862 or (787)832-4040 extensions 3250 or 3258.

13. Academic Integrity

-The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Students General Bylaws (Board of Trustees Certification 13, 2009-2010) states that academic dishonesty includes, but is not limited to: fraudulent actions; obtaining grades or academic degrees by false or fraudulent simulations; copying the whole or part of the academic work of another person; plagiarizing totally or partially the work of another person; copying all or part of another person answers to the questions of an oral or written exam by taking or getting someone else to take the exam on his/her behalf; as well as enabling and facilitating another person to perform the aforementioned behavior. Any of these behaviors will be subject to disciplinary action in accordance with the disciplinary procedure laid down in the UPR Students General Bylaws.—