COURSE SYLLABUS  
**CSC13112 – User Interface Design**

# GENERAL INFORMATION

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| Course name: | User Interface Design |
| Course name (in Vietnamese): | Thiết kế giao diện |
| Course ID: | CSC13112 |
| Knowledge block: |  |
| Number of credits: | 4 |
| Credit hours for theory: | 45 |
| Credit hours for practice: | 30 |
| Credit hours for self-study: | 90 |
| Prerequisite: CSC13002 |  |
| Prior-course: |  |
| Instructors: Nguyen Van Vu (Ph.D), | Le Khanh Duy (Ph.D) |

# COURSE DESCRIPTION

This course introduces and provides students with the basic principles, methods, processes, techniques and tools for the design of software user interfaces. The course also provides fundamental knowledge, guidelines and helps students practice designing good user interfaces on desktop, Web, and mobile devices as well as certain trendy/emerging computing platforms.

Students will have the opportunity to apply principles, methods and tools to design of the interface of software applications. Students will also discuss and evaluate user interfaces of existing applications. Through this course, students will obtain knowledge and skills in designing good user interfaces for software applications and conducting interface evaluation as well as practicing teamwork skills.

# COURSE GOALS

At the end of the course, students are able to

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| **ID** | **Description** | **Program LOs** |
| G1 | Work in teams to design the user interface of a software application and report results | 2.2.1, 2.2.2, 2.2.3 |
| G2 | Read papers and materials in English related to user interface design | 2.3.1, 2.3.2, 2.4.3, 2.4.5 |
| G3 | Analyze and evaluate user interfaces of existing applications | 4.1.x |
| G4 | Understand the importance, basic concepts, and components of user interface | 5.1.x, 5.2.1, 5.2.2 |
| G5 | Understand and apply basic principles of user interface for designing desktop, Web, and mobile applications | 5.1.x, 5.2.1, 5.2.2 |
| G6 | Understand and apply processes, methods, and tools for designing user interfaces effectively. | 4.3.x, 5.1.x, 5.2.1, 5.2.2 |
| G6 | Implement the user interface of software applications according the design | 1.2.1, 1.3.6, 5.3.1, 5.3.2 |

# COURSE OUTCOMES

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| **CO** | **Description** | **I/T/U** |
| G1.1 | Form teams; organize, manage, and assign tasks for team members | U |
| G1.2 | Collaborate with team members to perform needed activities | U |
| G1.3 | Monitor, report status, and resolve issues in teams | U |
| G2.1 | Read and understand concepts, methods, and principles of user interface in English | U |
| G3.1 | Analyze and evaluate user interface using techniques such as heuristic, field study, and formative evaluation | T, U |
| G3.2 | Distinguish the difference between desktop, Web, and mobile user interfaces | T, U |
| G3.3 |  |  |
| G4.1 | Understand the importance, basic concepts, and components of user interface | T |
| G5.1 | Understand and apply basic principles in designing desktop, Web, and mobile user interfaces as well as other modern computing platforms | T, U |
| G6.1 | Apply relevant processes for designing user interfaces of the application proposed by the team | T, U |
| G6.2 | Understand and practice the user-centered design methodology | T, U |
| G6.3 | Understand and apply different user interface design slyles appropriately | T, U |
| G6.4 | Understand and practice user interface prototyping | T, U |
| G6.5 | Use common user interface design tools | I, U |
| G7 | Apply programming skills to implement user interfaces of the proposed application | U |

# TEACHING PLAN

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| **No.** | **Topic** | **Course outcomes** | **Teaching/Learning Activities** |
| 1 | Introduction  Usability | G2.1, G4.1 | Lecture.  Reading: TL1. Ch 1, TL 2. Ch 2  Project: PA1 out |
| 2 | Learnability, Visibility, and Efficiency | G1.1, G1.2, G2.1, G4.1 | Lecture.  Reading: TL 2. Ch 2  Project: form teams  Individual: IA out |
| 3 | Design Process | G6.1, G6.6 | Lecture.  Reading: TL1. Ch 3, TL 2. Ch 4  Project: PA1 due, PA2 out |
| 4 | User research & Task Analysis | G6.2 | Lecture.  Individual: IA due |
| 5 | Prototyping | G6.4 | Lecture.  Project: PA2 due, PA3 out |
| 6 | Web UI | G5.1, G3.2 | Lecture. |
| 7 | Mobile UI | G5.1, G3.2 | Lecture.  Project: PA3 due, PA4 out |
| 8 | Graphic Design | G5.1 | Lecture. |
| 9 | Interaction Styles | G1.3, G6.3 | Lecture.  Reading: TL1. Ch 6, 7, 8  Project: PA4 due, PA5 out |
| 10 | Evaluating Interface Designs | G3.1 | Lecture.  Reading: TL1. Ch 4, TL2. Ch 6 |
| 11 | Review and summary | G4.1 | Lecture.  Project: PA5 due |

# ASSESSMENTS

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| **ID** | **Topic** | **Description** | **Course outcomes** | **Percentage** |
| **Quiz** | Short tests | From 3 to 4 quizzes that are given randomly, without prior notice. This assignment is used to check student attendance and attention. | G2x, G3x, G4x, G5x, G6x | **10%** |
| **DE** | In-class discussions and exercises | In-class discussions and exercises usually performed by teams. |  | **5% (+5% bonus)** |
| **IA** | Individual assignment | One individual assignment | G3.1 | **10%** |
| **PA** | **Five project assignments** | Students will form teams of 4-5 each to propose and work on designing user interfaces of software applications. Teams will follow the same guidance and schedule throughout the course. | **G1x, G3x, G5x, G6x** | **40%** |
| PA1 | Project assignment 1 | Forming teams and proposing the project |  | 5% |
| PA2 | Project assignment 2 | Task analysis and initial sketches |  | 8% |
| PA3 | Project assignment 3 | Paper prototyping |  | 7% |
| PA4 | Project assignment 4 | Computer prototyping |  | 7% |
| PA5 | Project assignment 5 | Implement demo, present demo, evaluate. |  | 13% |
| **Final** | **Final exam** | The final exam will cover materials from the lectures. It will be a 90-minute exam. | G2x, G3x, G4x, G5x, G6x | **35%** |

# RESOURCES

**Recommended readings:**

1. *TL1: Usability Engineering*Jakob Nielsen  
   Morgan Kaufmann, 1994
2. *TL2: The Design of Everyday Things*Don Norman  
   Doubleday Business, 1990, ISBN: 0385267746
3. *TL3: Don't Make Me Think: A Common Sense Approach to Web Usability, 3rd Ed* Steve Krug  
   New Riders, 2014, 0321965515

**Other additional reading materials will be posted on Moodle.**

# GENERAL REGULATIONS & POLICIES

* Students are responsible for reading and following strictly the regulations and policies of the Faculty and University.
* Students who are absent for more than 3 theory sessions are not allowed to take the final exam.
* Any kind of cheating and plagiarism is prohibited. Students committing cheating and plagiarizing will receive zero for the course. Incidents are then submitted to the school and university for further review.
* Students are encouraged to form study groups to discuss. However, individual work must be done and submitted by each student individually.