



T-104
2022

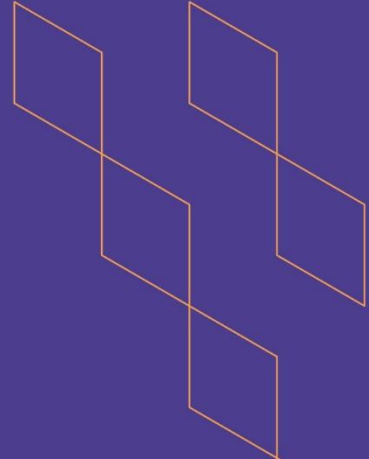
Course Specification





T-104
2022

Course Specification



| |
|---|
| Course Title: Interface Design and User Experience |
| Course Code: 2222 CSA |
| Program: Web and Mobile Application Development |
| Department: NA |
| College: Applied College |
| Institution: King Khalid University |
| Version: 1 |
| Last Revision Date: 6 August 2023 |



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A. General information about the course:

Course Identification

1. Credit hours: 2

2. Course type

a. University College Department Track Others

b. Required Elective

3. Level/year at which this course is offered: 3rd Level

4. Course general Description:

The course gives the students an overview of basic concepts and methods used in interaction design and user experiences with a particular focus on web development and web design. The course based on a user-centered view where human needs, thought processes and real situations are seen as necessary components in the development of digital systems and services. The course gives students knowledge and practical experience in design, development and evaluation methods that may be relevant in the development of digital systems and services. During the course, the students will design and work with prototypes to test, evaluate and demonstrate different solutions to design problems.

5. Pre-requirements for this course (if any): 1321CSA

6. Co- requirements for this course (if any):

7. Course Main Objective(s):

Upon successful completion of the course, students will be able to:

- understand the definition, difference, and similarities of user experience and usability and apply these to design, research, and testing practices in field of interaction design for digital interfaces.
- Apply behavioral economics principles to user-centered design and research.
- Analyze and evaluate the difference between qualitative and quantitative research methods as they relate to user experience and usability testing for concept validation.
- Conduct ethnographic research to produce user profiles.
- Create a functional, interactive prototype.
- Apply the basics of test design, including user consent, safety, ethics, and privacy concerns.
- Conduct effective usability and user experience test sessions.
- Generate usability and user experience assessment report.





1. Teaching mode (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|----|--|---------------|------------|
| 1. | Traditional classroom | 48 | 100 |
| 2. | E-learning | | |
| 3. | Hybrid <ul style="list-style-type: none"> • Traditional classroom • E-learning | | |
| 4. | Distance learning | | |

2. Contact Hours (based on the academic semester)

| No | Activity | Contact Hours |
|----|-------------------|---------------|
| 1. | Lectures | 16 |
| 2. | Laboratory/Studio | 32 |
| 3. | Field | |
| 4. | Tutorial | |
| 5. | Others (specify) | |
| | Total | 64 |



B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|------|---|-----------------------------------|--------------------------------------|-------------------------------------|
| 1.0 | Knowledge and understanding | | | |
| 1.1 | Define basic concepts in interaction design and user experiences | k1 | Lectures + Lab | Exams, Assignments, Quizzes |
| 1.2 | Explain important principles and methods for designing and evaluating websites and other digital services and artifacts. | k1 | Lectures + Lab | Exams, Assignments, Quizzes |
| 2.0 | Skills | | | |
| 2.1 | Implement responsive websites with a focus on usability and user experience. | s1 | Lectures + Lab | Exams, Assignments, Quizzes |
| 2.2 | Motivate the choice of design techniques in the development of websites and other digital services and artifacts. | s2 | Lectures, Lab, group discussion | Exams, Assignments, Quizzes |
| 2.3 | Create and use prototypes to demonstrate and evaluate the design of digital services and artifacts. | s3 | Lectures, Lab, group discussion | Exams, Assignments, Quizzes |
| 3.0 | Values, autonomy, and responsibility | | | |
| 3.1 | Analyze websites, interfaces and digital services from user perspective. Demonstrate the ability to design websites. Illustrate the ideas, skills and knowledge about the topic in written and oral form. | v1 | Lectures, Lab, Case Study, Groupwork | Exams, Assignments and presentation |
| 3.2 | Reflect on own design process. Show the ability of taking responsibility for self-learning and continuing personal and professional development. | v2 | Lab, Groupwork, Presentation | Exams, Assignments and presentation |
| 3.3 | Demonstrate the ability of being a team player and delivering within deadlines | v3 | Lab, Groupwork, Presentation | Exams, Assignments and presentation |



C. Course Content

| No | List of Topics | Contact Hours |
|----|--|---------------|
| 1 | <p>1. Introduction to Interaction design and User Experience</p> <p>1.1 Introduction to Interaction design</p> <p>1.1.1 Good and poor design, What to design?</p> <p>1.1.2 Processes involved in interaction design</p> <p>1.1.3 The goals of interaction design</p> <p>1.2. Understanding & conceptualizing Interaction design</p> <p>1.2.1 Understanding the problem space</p> <p>1.2.2 Conceptual models</p> <p>1.2.2.1 Conceptual models based on activities</p> <p>1.2.2.2 Conceptual models based on objects</p> <p>1.3 Introduction to User Experience</p> <p>1.3.1 Trends and Emerging Technologies in User Experience</p> <p>1.3.2 Mental model and Cognitive Model in UX(User Experience)</p> <p>1.3.2.1 Conceptual frameworks for cognition</p> <p>1.3.2.2 Applying knowledge from the physical world to the digital world</p> | 7 |
| 2 | <p>2. Designing for collaboration and communication</p> <p>2.1 Social mechanisms used in communication and collaboration</p> <p>2.2 Ethnographic studies of collaboration and communication</p> <p>2.3 Conceptual frameworks</p> | 4 |
| 3 | <p>3. Understanding how interfaces affect users?</p> <p>3.1 Introduction</p> <p>3.2 What are affective aspects?</p> <p>3.3 Expressive interfaces</p> <p>3.4 User frustration</p> | 4 |
| 4 | <p>4. Process of Interaction Design and User Experience</p> | 5 |



| | | |
|---|--|---|
| | <p>4.1 Introduction</p> <p>4.1.1 Four basic activities of interaction design, 4.1.2 Three key characteristics of the interaction design process</p> <p>4.2 Practical issues of the User</p> <p>4.3 Life cycle models: showing how the activities are related</p> | |
| 5 | <p>5. Identifying needs and establishing requirements -</p> <p>5.1 Elements used in User Experience Design. What, how, and why? 5.2 Requirements needed, Kinds of requirements 5.3 Data gathering techniques 5.4 Data interpretation and analysis 5.5 Task description</p> | 5 |
| 6 | <p>6. Design –Wire framing, prototyping and construction</p> <p>6.1 Introduction- Prototyping and construction 6.2 What is a prototype? Why prototype? Types of prototyping 6.4 Conceptual design: moving from requirements to first design 6.5 Physical design: getting concrete</p> | 5 |
| 7 | <p>7. User-centered approaches to Interaction Design</p> <p>7.1 Importance of involving users 7.2 What is a user-centered approach? 7.3 Understanding users' work: applying ethnography in design 7.4 Involving users in design: Participatory Design</p> | 4 |
| 8 | <p>8. Evaluation and Observing Users</p> <p>8.1 Introduction to Evaluation</p> <p>8.1.1 An evaluation framework 8.1.2 Evaluation paradigms and techniques</p> <p>8.2 Observing users</p> <p>8.2.1 Goals, questions and paradigms - What and when to observe 8.2.2 Approaches to observation-Participant observation and ethnography</p> | 7 |



| | | |
|--------------|--|-----------|
| | 8.2.3 Data collection - Analyzing, interpreting and presenting data 8.2.4 Qualitative and Quantitative data analysis 8.2.5 Feeding the findings back into design | |
| 9 | 9. Testing and modeling users 9.1 Introduction to User testing 9.2 Doing user testing 9.2.1 Determine the goals and explore the questions 9.2.2 Choose the paradigm and techniques 9.2.3 Identify the practical issues: Design, typical tasks, Select typical Users 9.2.4 Prepare the testing conditions, Plan how to run the tests, 9.2.5 Deal with ethical issues, Evaluate, analyze, and present the data 9.3 Experiments 9.4 Predictive models | 7 |
| 10 | 10. Design & evaluation in the real world: communicators & advisory systems 10.1 Introduction 10.2 Designing mobile communicators | 5 |
| Total | | 48 |

D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|----|-------------------------|--------------------------------|--------------------------------------|
| 1. | Quiz 1 | 4 | 5 |
| 2. | Midterm Exam 1 | 7 | 10 |
| 3. | Practical Assessment | 1 to 16 | 30 |
| 4. | Midterm Exam 2 | 12 | 10 |
| 5. | Quiz 2 | 14 | 5 |
| 6. | Final Exam | After week 16 | 40 |

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)



E. Learning Resources and Facilities

1. References and Learning Resources

| | |
|--------------------------|--|
| Essential References | <p>Interaction design : beyond human-computer interaction <i>Sharp, Helen; Rogers, Yvonne; Preece, Jennifer</i> <i>Fifth edition : Indianapolis, IN:Wiley,[2019]</i></p> <hr/> <p>Don't make me think, revisited : a common sense approach to web usability - Krug, Steve -[3. ed.]: [Berkeley, CA]: New Riders, 2014</p> |
| Supportive References | <ul style="list-style-type: none"> • The Elements of User Experience: User-Centered Design for the Web, Jesse James Garret, ISBN: 0735712026 • Designing for the Digital Age, by Kim Goodwin, ISBN: 0470229101 • Clout: The Art and Science of Influential Web Content, Colleen Jones, ISBN: 0321733010 • Usability Engineering: Process, Products, and Examples, Laura Leventhal and Julie Barnes, ISBN: 0131570080 • User Experience Re-Mastered - Chauncey Wilson, Publisher: Morgan Kaufmann - ISBN: 9780123751140 Link: https://library.ohio-state.edu/record=b9180167 • Measuring the User Experience, 2nd Edition , : William Albert; Thomas Tullis, Publisher: Morgan Kaufmann , Pub. Date: May 23, 2013. Print ISBN-13: 978-0-12-415781-1 Web ISBN-13: 978-0-12-415792-7 Pages in Print Edition: 320 Link: https://library.ohio-state.edu/record=b9163833 |
| Electronic Materials | <p>List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)</p> <p>http://www.lms.kku.edu.sa</p> |
| Other Learning Materials | <p>Online Tutorials</p> <ul style="list-style-type: none"> • Encyclopedia of Human-Computer Interaction (EHCI) - https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed • The UX Reader (UXR) - https://theuxreader.com/products/the-ux-reader-ebook |





- Bright Ideas for UX Designers (BIUX) - <https://www.userfocus.co.uk/ebooks/uxdesign.html>
 - Glossary of Human-Computer Interaction (GHCI) - <https://www.interaction-design.org/literature/book/the-glossary-of-humancomputer-interaction>
- 5 Keys to a Successful Google Team (5K) - <https://rework.withgoogle.com/blog/five-keys-to-a-successful-google-team/>

2. Required Facilities and equipment

| Items | Resources |
|--|---|
| facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | <ul style="list-style-type: none"> • Lecture Room with a capacity of More than 30 Chairs and Tables for Students and 1 Teacher's Table and Chair and 1 Projector/Screen. • Laboratories with at least 25 Computers for students and 1 for Lab Instructor and Lab Assistant with Computer Table/Chair with the same number and 1 Projector/Screen. |
| Technology equipment (projector, smart board, software) | <ul style="list-style-type: none"> • Projectors, Computer for Theory Classes and Practical Sessions. • Internet connection. |
| Other equipment (depending on the nature of the specialty) | Adobe Illustrator, Figma, Invision, Axure and Web Development tools... |

F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|----------------------------------|--------------------|
| Effectiveness of teaching | Students | Indirect |
| Effectiveness of students assessment | Course Teacher | Direct |
| Quality of learning resources | Program Supervisor, Quality Unit | Direct |
| The extent to which CLOs have been achieved | Course Teacher | Direct |
| Other | Course Teacher, Quality Unit | Direct |

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL
/COMMITTEE





REFERENCE NO.

DATE

