# Course Outline

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| **Course title: Mobile Development** | **Instructor name: John Bryan Ramon** |
| **Credit units: 3** | **Total hours: 54** |

## Course Description:

This course teaches you how to make interfaces on mobile apps and layouts.

## Course Learning Outcomes (CLOs)

* Understand the fundamental concepts and current trends in mobile app development.
* Design user-friendly interfaces and layouts for mobile applications.
* Evaluate and apply principles of mobile user experience to enhance app usability.
* Create responsive and adaptive layouts for a variety of mobile devices.
* Select and utilize appropriate mobile app development frameworks and tools.

## Topics / Modules and Intended Learning Outcomes

1. Introduction to Mobile Development

* Describe the history and current trends in the mobile app development industry.
* Analyze the impact of mobile applications on various sectors, including their role in the COVID-19 response.

1. Mobile User Interface Design

* Apply the principles of visual perception and Gestalt psychology to mobile interface design.
* Evaluate the effectiveness of mobile microlearning design principles in user interface creation.

1. Mobile User Experience

* Assess the impact of humor and camera view on user experience in mobile short-form video apps.
* Implement best practices for enhancing customer experience through new technologies in mobile apps.

1. Layouts in Mobile Apps

* Design effective graphic layouts for mobile applications, considering functional and aesthetic constraints.
* Identify and avoid UI dark patterns in mobile app design to ensure ethical design practices.

1. Mobile App Development Frameworks

* Compare and contrast different mobile app development frameworks and their use cases.
* Apply AI-based modeling techniques to develop intelligent mobile applications.

## Weekly Activities

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| **Week No.** | **Topic** | **Activity Description** | **Expected Output** | **Assessment Tools** |
| Week 1-2 | **Introduction to Mobile Development** | Lecture on the history and evolution of mobile app development; Discussion on the role of mobile apps during the COVID-19 pandemic. | Summary report on the evolution and current trends in mobile app development. | Report grading rubric |
| Week 3-4 | **Mobile User Interface Design** | Workshop on applying visual design principles; Group activity to critique and redesign an existing mobile app interface. | Redesigned mobile app interface mockups. | Peer review, Instructor evaluation |
| Week 5-6 | **Mobile User Experience** | Case study analysis on user experience in short-form video apps; Implementation of UX best practices in a prototype. | Case study report and UX-enhanced app prototype. | Case study analysis rubric, Prototype demonstration |
| Week 7-9 | **Layouts in Mobile Apps** | Design challenges to create graphic layouts for different app genres; Seminar on ethical design and UI dark patterns. | Portfolio of diverse app layouts; Presentation on ethical design considerations. | Portfolio review, Presentation grading rubric |
| Week 10-12 | **Mobile App Development Frameworks** | Comparative analysis of mobile app development frameworks; Hands-on project to build a simple AI-based app. | Comparative framework analysis report; AI-based mobile app prototype. | Analytical report rubric, Prototype testing |
| Week 13-18 | **Capstone Project** | Final project where students will design and develop a complete mobile app incorporating UI/UX principles, responsive layouts, and an appropriate development framework. | Fully functional mobile app and project documentation. | Project presentation, App functionality testing, Documentation assessment |

## References

*Thomas, C. G., & Devi, J. (2021). A study and overview of the mobile app development industry.*  
Link: https://supublication.com/journals/index.php/ijaeml/article/view/110

*Johnson, J. (2020). Designing with the mind in mind: Simple guide to understanding user interface design guidelines.*  
Link: https://books.google.com/books?id=IDz6DwAAQBAJ

*Wang, Y. (2020). Humor and camera view on mobile short-form video apps influence user experience and technology-adoption intent, an example of TikTok (DouYin).*  
Link: https://www.sciencedirect.com/science/article/pii/S0747563220302761

*Lee, H. Y., Jiang, L., Essa, I., Le, P. B., Gong, H., Schmid, C., & Laptev, I. (2020). Neural design network: Graphic layout generation with constraints.*  
Link: https://link.springer.com/chapter/10.1007/978-3-030-58586-0\_30

*Al-Azawei, A., & Alowayr, A. (2020). Predicting the intention to use and hedonic motivation for mobile learning: A comparative study in two Middle Eastern countries.*  
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