MALAWI UNIVERSITY OF SCIENCE AND TECHNOLOGY
MALAWI INSTITUTE OF TECHNOLOGY

1. **Programme(s):**   BBIT/BGIS
2. **Module Title:**   Mobile Application Development
3. **Module code:**   MAPP-320
4. **Year:**   3
5. **Credit:**   10
6. **Presented to:**   Senate
7. **Presented by:**   Malawi Institute of Technology
8. **Lecture (hrs/wk):**   2
9. **Tutorial (hrs/wk):**   2
10. **Prerequisites:**   None
11. **Co-requisites:**   None
12. **Module Aims**

To provide students with the principles, and practical experience, in mobile application design, development, and distribution

13. **Intended Learning Outcomes**

On completion of this module, students should be able to:
- Discuss design considerations for mobile application development
- Designing and develop mobile applications using an application development framework
- Critique mobile applications and related design approaches
- Work within the capabilities and limitations of a range of mobile computing devices
- Utilize rapid prototyping techniques to design and develop mobile interfaces
- Implement mobile applications using appropriate software development

environments
- Explain key issues in mobile security
- Publish, deploy, maintain, a mobile application

14. Indicative Content

a. Introduction: Introduction to mobile computing, mobile operating system architectures, application development frameworks and environments (Android, iOS, Windows, etc.)

b. Mobile user experience design

c. Prototyping

d. Storing and retrieving data

e. Messaging

f. Networking

g. Notifications and alarms

h. Location-based services

i. Ubiquitous computing: wearables, living room

j. Mobile device security

k. Publishing, deployment, maintenance, and management of mobile applications

15. Assessment

Coursework (20% from assignments and 30% from at least two tests): 50%;
Examinations: 50%

16. Teaching and Learning Methods / Activities

Lectures, Tutorials, group work and individual assignments

17. Prescribed texts

Griffiths, D. And Griffiths, D. (2017). *Head First Android Development: A Brain-Friendly Guide 2nd Edition*. O'Reilly Media

Boyer, R., (2018). *Android 9 Development Cookbook: Over 100 recipes and solutions to solve the most common problems faced by Android developers, 3rd Edition*. Pack Publishing.

Levin, M. (2014). *Designing Multi-Device Experiences: An Ecosystem Approach to User Experiences across Devices*

18. Recommended texts

Jones, M., Marsden, G. (2006). *Mobile Interaction Design* (4th edition). John

Wiley & Sons

19. Journal

Wireless and Mobile Technologies Science and Education Publishing
www.sciepub.com/journal/WMT

IBIMA Publishing Journal of Mobile Technologies, Knowledge and Society
ibimapublishing.com/journals/journal-of-mobile-technologies-knowledge-and-society/

Journal of Mobile Technology in Medicine mHealth Research
www.journalmtm.com/

Date: March 2016, Reviewed March 2021