MAKERERE UNIVERSITY BUSINESS SCHOOL
FACULTY OF COMPUTING AND INFORMATICS
DEPARTMENT OF APPLIED COMPUTING & INFORMATION TECHNOLOGY
BACHELOR OF OFFICE & INFORMATION MANAGEMENT

<u>**COURSE OUTLINE**</u>

Course:	**INTERNET AND EMERGING TECHNOLOGIES**
Semester:	II
Course code:	**BUC1104**
Academic year:	**2023/2024**
Year:	**ONE**

Course Description:

The Internet and Emerging Technologies course provides students with knowledge and understanding related to the demands of emerging technologies. Emerging technologies are generally defined as a radically novel and relatively fast-growing technology application that can be cited in Learning, Health, Commerce, and manufacturing. The applications to be covered have amazing abilities like 3D printing, robotics, autonomous vehicles, Artificial Intelligence (AI), Internet of Things (IoTs), etc. This course will introduce various cutting-edge technologies and explore the interactions between the technologies and the users. This course will explore the features and functionality of the various emerging web technologies. This course will look at how Individuals, organizations & executives are implementing these various tools as well as their potential uses.

Emerging technologies are often perceived as capable of changing the status quo. Emerging technologies are characterized by radical novelty (in application even if not in origins), relatively fast growth, coherence, prominent impact, and uncertainty and ambiguity. In other words, an emerging technology can be defined as "a radically novel and relatively fast-growing technology characterized by a certain degree of coherence persisting over time and with the potential to exert a considerable impact on the socio-economic domain(s) which is observed in terms of the composition of actors, institutions and patterns of interactions among those, along with the associated knowledge production processes. Its most prominent impact, however, lies in the future and so in the emergence phase is still somewhat uncertain and ambiguous.

Course Objectives:

- To provide theoretical framework to study and understand emerging web technologies.
- To discuss the development and implementation of new technology solutions.
- To discuss policies addressing implementation of emerging web technologies, and their impact on information management, users, and the environment.
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Learning Outcomes:

After taking this course, the student will be able to:

- Create a business case for an emerging information technology
- Identify factors affecting the successful adoption of new information technologies
- Describe technology trends that presently drive or are expected to drive the selection of new technologies over the next decade.
- Develop general knowledge about emerging technologies

Mode of delivery: The course will use a combination of methods as its pedagogy to help students achieve these objectives. The pedagogical methods include case analysis, lectures, presentations, demonstrations, hands-on-applications and verbal and computer-mediated group discussions.

COURSE CONTENT

Week	Topic
Week 1	**Understanding the Internet and its enabling role** - What is the internet? - Evolution of the internet - How do we connect to the internet? - Uses/ relevance of the internet - Challenges of the internet.
Week 2	**Trends & Evolution of Technology in business** - The Industrial revolution - How Emerging Technologies are shaping the Business environment.
Week 3	**Introduction to Emerging Technologies** - What they are - How they are changing the business landscape (education, manufacturing, health etc..) - Application of the technologies. - Digital disruption
Week 4 & 5	**Re-thinking data** - Big Data
	COURSEWORK ONE
Week 6	**Rethinking / Re-imagining user experience** - Web platforms - Wearables - Conversational interfaces - Virtual Reality

Week 7	**Social Media & Communication** -Know what social networks are and how they are used. -The difference between major social networks -The benefits and risks of using social networks. -Trends that may influence the evolution of social networks.
Week 8	**Cloud computing** - What is cloud computing - Cloud infrastructure - Cloud computing services - Advantages & Disadvantages
Week 9	**Internet of Things (IoTs)** - What is IoT? - How it works - Benefits of IoT
	COURSEWORK TWO
Week 10	**Artificial Intelligence / AI**
Week 11&12	**Block Chain Technology**
Week 13	**Ethics and professionalism in Emerging Technologies** - Technology and ethics - Digital Privacy
Week 14	**Security & Emerging Technologies** - Cyber Security
	FINAL EXAMINATION

Mode of Delivery
- Straight lectures
- Case studies
- Group and class discussions

Mode of Assessment
- Class participation and assignments   10%
- Course works   20%
- Final exam   70%

Recommended Readings

Text Books:

Henry A Kissinger, Eric Schmidt, Daniel Huttenlocher (2021). The Age of AI: And Our Human Future

David Weinberger (2019) Everyday Chaos: Technology, Complexity, and How We're Thriving in a New World of Possibility

Luftman, Jerry (2009). Managing Emerging Technologies. Managing Information Resources

Articles and Web Resources:
Corrado, E. M., &Moulaison, H. L. (Eds.). (2011). *Getting started with cloud computing: A LITA guide* (Guide #16). New York: Neal-Schuman. ISBN: 978-1-55570-749-1 [on reserve] 11 Duncan, R. (2010).

Ebooks and beyond: The challenge for public libraries. *APLIS*, 23(2), 44-55. Available via EBSCOHost:

http://proxy.mul.missouri.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=lxh&AN=51828431&site=ehost-live

Han, Y. (2010). On the clouds: A new way of computing. *Information Technology and Libraries, 29*(2), 87-92. Available via EBSCOhost:
http://proxy.mul.missouri.edu/login?url=http://search.ebscohost.com/login.aspx?

Ipri, T. (2011). Where the cloud meets the commons. *Journal of Web Librarianship, 5,* 132-141. DOI: 10.1080/19322909.2011.573295

Jordan, J. (2011). Climbing out of the box and into the cloud: Building web-scale for libraries. *Journal of Library Administration, 51*, 3-17. Available via Taylor & Francis:
http://dx.doi.org.proxy.mul.missouri.edu/10.1080/01930826.2011.531637