

MURANG’A UNIVERSITY OF TECHNOLOGY

COURSE OUTLINE

**Unit Code:** SIT 406 **Unit Title:** Trends in Information Technology

**Prerequisite(s):** None **Lecturer’s Name:** {Insert Name}

**Lecturer’s Tel. No.** {Insert Number} **Email Address:** {Insert Email}

**Semester:** 3 **Academic Year:** 2021/2022

**Credit hours:** 3 hours **Groups**: {Insert Groups} BBIT, BIT, BCT, BSc. M&C.S

**Purpose of the course**

This course will provide students with the opportunity to investigate trends and examine the potential impact of the technology.

**Learning Outcomes:**

Upon successful completion of this course, the student will have reliably demonstrated the ability to:

1. Describe and evaluate the impact of the implementation of emerging and trending technologies.
2. Research, summarize, and present trends that will have an effect on the computing industry.
3. Investigate, test, and consider the use and cost effectiveness of technologies in the business environment.

**Teaching Methodologies**

Lectures, practical and tutorial sessions in Computer Laboratory, individual and group assignments, exercises and project work.

**Instructional Materials/Equipment**

Overhead projector and computer, handouts, white boards, Textbooks, appropriate software.

**Course Assessment**

30% Continuous Assessment

70% End of Semester Examination.

**COURSE OUTLINE**

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| **WEEK** | **TOPIC** | **SUB-TOPIC** |
| 1 | Introduction to trends in  information technology | Identification of trending  Information technologies |
| 2 | Presentation on Artificial Intelligence | ANN, Robotics, Machine  Learning. |
| **3** | **CAT 1** |  |
| 4 | Presentation on Artificial Intelligence | Fuzzy Logic, Expert Systems and Natural Language Processing |
| 5 | Presentation on Cyber Security | Cyber dependent and enabled  attacks, cyber security solutions |
| **6** | **CAT 2** |  |
| 7 | Presentation on 5G and 6G | 5G and 6G Technology and applications |
| 8 | Presentation on Internet of Things | Smart City, Smart Home, Smart Cars etc |
| 9 | Presentation on Blockchain technology | Blockchain technology and its applications |
| 10 | **CAT 3** |  |
| 11 | Presentation on Cloud computing, Fog Computing and Edge Computing | Models, service architectures and application areas |
| 12 | Presentation on Virtual Reality, Augmented Reality and Mixed Reality | Applications of VR and AR |
| 12 | REVISION |  |
| 13 | EXAMS |  |
| 14 | EXAMS |  |