# Course Outline

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| **Course title: IT031 LIVING IN THE IT ERA (Digital Technology)** | **Instructor name: Jun Albert Pardillo** |
| **Credit units: 3** | **Total hours: 54** |

## Course Description:

This course covers the science, culture and ethics in information technology, its influence on modern living and human relationships, and uses for personal, professional, and social advancement.

## Course Learning Outcomes (CLOs)

* CLO 1: Understand the historical development of information technology and its global and national implications.
* CLO 2: Analyze the impact of information technology on society, culture, and human relationships.
* CLO 3: Evaluate the ethical considerations and challenges presented by the advancements in information technology.
* CLO 4: Assess the influence of information technology on professional, personal, and social advancement.
* CLO 5: Discuss the current trends and issues in information technology, particularly in the context of the Philippines.

## Topics / Modules and Intended Learning Outcomes

1. Overview of Information Technology

* Describe the evolution and historical milestones of information technology from prehistoric times to the present.
* Explain the role of information technology in shaping global history and culture.

1. Information Technology and Society

* Analyze the effects of information technology innovations on firm performance and job creation.
* Discuss the impact of information technology on education and societal needs during the pandemic.

1. Information Technology in the Philippines

* Examine the employability and career trajectories of Information Technology Education graduates in the Philippines.
* Discuss the adoption and challenges of green IT practices among SMEs in the Philippines.

1. Ethical Issues in Information Technology

* Evaluate the ethical considerations and challenges posed by artificial intelligence and other disruptive technologies.
* Discuss the ethical, legal, and social implications of health information technology, particularly in the context of telehealth during pandemics.

1. Information Technology and Human Relationships

* Assess the influence of artificial intelligence and robotics on human resource management and customer relationships.
* Analyze the effects of the industry 4.0 revolution on human capital development and consumer behavior.

## Weekly Activities

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| **Week No.** | **Topic** | **Activity Description** | **Expected Output** | **Assessment Tools** |
| Week 1 | **Overview of Information Technology** | Introduction to the course and an overview of the syllabus, followed by a lecture on the prehistoric times to the early 20th century IT developments. | Students will create a timeline of significant IT milestones. | Timeline presentation and class participation |
| Week 2 | **Overview of Information Technology** | Continuation of the historical overview focusing on post-World War II to the present IT developments. | Students will write a short essay on the role of IT in a significant global event. | Essay submission and discussion |
| Week 3 | **Information Technology and Society** | Discussion on how IT innovations have impacted firm performance and job creation. | Group presentation on case studies of IT impact on specific businesses. | Presentation and peer evaluation |
| Week 4 | **Information Technology and Society** | Exploration of IT's role in education and societal needs during the pandemic. | Students will participate in a debate on the benefits and drawbacks of e-learning. | Debate performance and reflection paper |
| Week 5 | **Information Technology in the Philippines** | Investigation of the employability and career trajectories of IT graduates in the Philippines. | Students will conduct interviews with IT professionals and present their findings. | Interview report and presentation |
| Week 6 | **Information Technology in the Philippines** | Examination of green IT practices among SMEs in the Philippines. | Students will prepare a proposal for implementing green IT practices in a small business. | Proposal document and class discussion |
| Week 7 | **Ethical Issues in Information Technology** | Evaluation of ethical considerations in AI and disruptive technologies through a workshop. | Students will develop ethical guidelines for AI use in a chosen industry. | Workshop participation and guidelines document |
| Week 8 | **Ethical Issues in Information Technology** | Discussion on the ethical, legal, and social implications of health IT. | Students will create a case study analysis of telehealth services during pandemics. | Case study analysis and class presentation |
| Week 9 | **Information Technology and Human Relationships** | Assessment of AI's influence on HR management and customer relationships. | Role-playing exercise to simulate AI integration in HR scenarios. | Role-play demonstration and reflective journal |
| Week 10 | **Information Technology and Human Relationships** | Analysis of Industry 4.0's effects on human capital and consumer behavior. | Research paper on the implications of Industry 4.0 for a specific sector. | Research paper and peer review |
| Week 11-18 | **Capstone Project** | Students will work on a capstone project that encompasses all five topics, applying their knowledge to a real-world IT problem or scenario, with periodic check-ins and feedback sessions. | A comprehensive report and presentation on the capstone project. | Project report, presentation, and peer evaluation |

## References

*Campbell-Kelly, M., Aspray, W. F., Yost, J. R., & Tinn, H. (2023). Computer: A history of the information machine.*  
Link: https://books.google.com/books?hl=en&lr=&id=G868EAAAQBAJ

*Chege, S. M., Wang, D., & Suntu, S. L. (2020). Impact of information technology innovation on firm performance in Kenya.*  
Link: https://www.tandfonline.com/doi/abs/10.1080/02681102.2019.1573717

*Albina, A. C., & Sumagaysay, L. P. (2020). Employability tracer study of Information Technology Education graduates from a state university in the Philippines.*  
Link: https://www.sciencedirect.com/science/article/pii/S2590291120300449

*Safdar, N. M., Banja, J. D., & Meltzer, C. C. (2020). Ethical considerations in artificial intelligence.*  
Link: https://www.sciencedirect.com/science/article/pii/S0720048X19304188

*Vrontis, D., Christofi, M., Pereira, V., Tarba, S., & Thrassou, A. (2022). Artificial intelligence, robotics, advanced technologies and human resource management: a systematic review.*  
Link: https://www.tandfonline.com/doi/abs/10.1080/09585192.2020.1871398