



## ADVENTIST UNIVERSITY OF AFRICA

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# Presentation of the Master of Science in Applied Computer Science

The primary goal of the master in Applied Computer Science programme is to produce graduates who will have the knowledge, skills and attitudes to effectively manage IT and Computing Environments. These graduates will have the theory in computer and information science and the ability to translate the theory into everyday life in their current employment position as they plan, design and manage computer information systems within an African context, and the world at large.

By the end of the Master degree programme, students will be able to:

1. Keep abreast of the ongoing trends in research and the technological advancement in computer science,
2. Have the practical skills to integrate new advancements into their current setting.
3. Effectively compare, evaluate, and specify appropriate hardware and software to implement a given IT/computing solution.
4. Have an understanding of business environments to smoothly work with business personal in a team setting providing leadership in integrating information and computer technology.
5. Be a self-starter.
6. Understand and have defined the concept of a worldview and servant leadership.

The programme has three areas of specializations: Cybersecurity, E-Services, Networks and Systems Administration.

### **Cyber Security Learning Outcomes**

By the end of the specialization, the graduate should be able to:

1. Enumerate and describe the various techniques and technologies used to secure networks and data.
2. Analyze and discover security breach, and contain the damage cause by the breach.

3. Evaluate the vulnerability level and provide appropriate control solutions.
4. Detect and prevent intrusions.
5. Use appropriate cryptographic tools and techniques to ensure data security.
6. Develop computer networks and infrastructures security policy.

### **E-Services Learning Outcomes**

By the end of the specialization, the graduate should be able to:

1. Enumerate and describe current cloud-computing technologies.
2. Evaluate, Specify and Implement Internet based solutions.
3. Analyze big data and provide business decision makers with information and tools.
4. Lead a software development project team.

### **Networks and Systems Administration**

By the end of the specialization, the graduate should be able to:

1. Enumerate and describe current cloud-computing technologies.
2. Plan, design, implement and manage a network system.
3. Integrate emerging Internet Technologies into local networks.
4. Specify, set up and maintain systems and networks in a secured and risk controlled environment.