

1 Welcome & Introduction

Welcome to **Carnegie Mellon University Africa** and the College of Engineering. Carnegie Mellon University has a prominent history of excellence in higher education and global thought leadership in technology innovation and is the first United States research institution offering engineering master's degrees on the continent of Africa.

Carnegie Mellon University in Africa has an intentional ambition to propel all students to reach their highest potential in intellectual and innovative pursuits, personal and social well-being, professional development, leadership, and entrepreneurial discovery that will impact and contribute to the African continent.

As a Carnegie Mellon University Africa student, you are now a member of a dynamic community of peers, scholars, and practitioners who will help support and challenge you during your academic journey. All community members are given many privileges and likewise accept responsibilities to uphold the standards of Carnegie Mellon University Africa. It is the responsibility of each student to read and understand the contents of this handbook.

To ensure you are knowledgeable of the university's expectations, policies, and guidelines it is important to familiarize yourself with the CMU-Africa Graduate Handbook. While this handbook is specific to your academic experience in the department, it is just one element of the Graduate Student Handbook Suite. There are several other resources within the suite that you should consult when needed:

- College of Engineering Handbook
- The Student Handbook

The handbook is intended to set guidelines and expectations for new and current Master's students at Carnegie Mellon University Africa. This handbook is not exhaustive and is subject to revision at any time by Carnegie Mellon University Africa (CMU-Africa) leadership. This handbook, along with any revisions, will be posted and announced annually to the CMU-Africa website.

Last revised: September, 2024

Students with disabilities may request this handbook in other formats by contacting the

Student Affairs Team.

With Gratitude and Tartan Pride,

Conrad S. Tucker

Director, Carnegie Mellon University-Africa

2 Program Vision, Mission, and Values

2.1 Brief Overview of CMU-Africa

In 2011, upon the invitation of the Government of Rwanda (GoR), Carnegie Mellon and the GoR signed an agreement to establish a new CMU location in Kigali, Rwanda. This ambitious and innovative partnership was designed to respond to the critical shortage of high-quality engineering talent required to harness Africa's tremendous potential as home to the fastest-growing workforce in the world. CMU-Africa is a regional ICT center of excellence educating a diverse composition of future leaders from all over Africa, who will use their hands-on skills and knowledge to advance technology innovation and grow businesses.

Visit the CMU-Africa website to obtain information about academics, research student life, event calendar and announcements²¹.

2.2 Vision

Our vision is to advance Africa's intellectual and digital development.

2.3 Mission

CMU-Africa's mission is to deliver transformative educational programs to cultivate future technology leaders, entrepreneurs and innovators from across Africa. CMU-Africa engages in collaborative research and innovation to address African and global challenges.

2.4 Core Values

- **Collaboration:** We commit to each other through transparency, trust, communication, and accountability to work together to achieve our shared goals. We commit to work with a broad range of partners to achieve our mission.
- **Excellence:** We commit to the attainment of the highest standards of quality, timeliness, and performance in all our programs, services, and operations.

- **Inclusion:** We commit to foster and empower an inclusive community that embraces individuals and ideas from a broad diversity of perspectives.
- **Integrity:** We commit to act with honesty, trustworthiness, and dependability in alignment with the highest academic, professional, and ethical standards.

3 Degrees Offered

Our full-time graduate programs are educating future leaders who will use their hands-on, experiential learning to advance technology innovation and grow the businesses that will transform Africa³⁰.

Carnegie Mellon University Africa offers four degree programs:

- Master of Science in Information Technology (**MSIT**)
- Master of Science in Electrical and Computer Engineering (**MS ECE**)
- Master of Science in Electrical and Computer Engineering Advanced Study Program (**MS-AD in ECE**)
- Master of Science in Engineering Artificial Intelligence (**MS EAI**)

Please note: The instruction for all degrees and programs will occur in **English**.

4 Departmental Personnel

4.1 Staff and Faculty Directory

The Carnegie Mellon University Africa faculty and staff are available to guide and provide you with support to complete your graduate degree program. Refer to the online Directory for the full list. Below are primary staff that will assist you with various services.

Service	Title	Name
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Admissions and New Student Matriculation toward Enrollment	Admissions and Enrollment Officer	Flavia Mugire
Diversity, Equity and Inclusion	Associate Director of Diversity, Equity and Inclusion	Nancy Biwott
Graduate Admissions	Associate Director of Admissions	Rosine Kamahoro
Graduate Recruitment	Associate Director of Recruitment	Abraham Darriel
Guidance with Degree Plans, Course Registration, Curriculum and Degree Program Completion, General Academic Advising	Academic Advisor (transitioning out)	Gikundiro Buki Olga
Guidance with Student Account, Financial and Payment Plan Matters	Finance Officer	Reginald Donkor
Inquiries Related to Faculty Matters	Academic Affairs Coordinator	Gisele Gihozo
Internships, Career Pathway and Career Professional Development, Guidance with Job Portal	Career Services Officer (transitioning out)	Patricia Musiime
Matters Related to Mastercard Foundation Scholars Program	Program Manager	Gikundiro Buki Olga
New Student Orientation and Co-curricular programs	Student Success and Co-Curricular Manager	Lucy-Anna Kelly

Student Affairs, Financial Aid, Student Programming	Associate Director of Student Affairs	Ines Manzi
Student Wellness, Student Clubs, Student Guild, Student Visas	Student Services Officer	Mika Inamahoro
Conference support for alumni	Faculty Support Coordinator	Esther Bugaiga

Emails to Request Support Services

Support Service Inquiries	Department	Email Address
Campus Facility	Facilities	africa-facilities@andrew.cmu.edu
Faculty, Student Conferences	Academic Affairs	africa-academics@andrew.cmu.edu
Financial and Payment Plan Matters	Finance	africa-finance@andrew.cmu.edu
Guidance to Organize Campus Student Event, Guidance with Social Media Support	Event Management	cmu-africa-events@andrew.cmu.edu
Human Resources	Human Resources	africa-hr@andrew.cmu.edu
IT Tickets	Information Technology	africa-it-help@andrew.cmu.edu

New Admitted Student Matters	Graduate Admissions	africa-admissions@andrew.cmu.edu
Student Account and Scholarships Matters	Student Account	africa-financial-aid@andrew.cmu.edu
Student Support Matters	Student Affairs	studentsupport-africa@andrew.cmu.edu

5 Departmental Resources

5.1 Purchasing and Reimbursement Procedures and Policies

All graduate student purchases with clear business justification must be requested through the student affairs team or academic affairs team. If graduate students will be making purchases, they must be aware of the department's protocols to work with for these purchases. More information on University purchases and policies can be accessed through the provided link.

5.2 CMU-Africa Facilities

CMU-Africa is housed in the **Regional ICT Center of Excellence Building** in the **Kigali Innovation City**.

5.3 Facility Management

All facility and equipment requests and complaints (which may include access to the photocopier, power sockets, water leakages, etc.)

a) Access to Facilities

Students will be provided with individual **ID cards** for secure access to the facility and will be responsible for their individual use. Students are responsible for reporting any security-related incident that they may be aware of. Students on a leave of absence suspension must surrender their student ID card to the Student Services Officer. Lost or stolen cards should be reported immediately to the Student Services Officer. It is the

responsibility of the student to get replacement cards for lost or stolen cards. Student ID cards will be deactivated upon graduation.

b) Lockers

Students will be assigned a locker and a key on the first day of the semester. Students are responsible for the locker's contents and safe keeping of the key for the duration of their program. Students must clear the locker contents and return the key upon graduation⁷⁴.

c) Policy on Lost or Stolen Locker Keys

In the event of a lost locker key, students will pay for the cost of reproducing another key or in an extreme case, installing a new lock and key for the locker. Students will be responsible for the locker's contents while the locker is assigned to them. CMU-Africa will not assume any liability for the locker's contents' loss, damage, or theft.

d) Lounge/ Kitchenette Cleanliness

The student kitchen/lounge is available to all CMU-Africa students. The cleaning staff will clean the floor and empty the trash bins once a day. Students will be responsible for cleaning the microwave, coffee machine and other electric appliances. For any concerns about the cleanliness, report to the facility officer.

e) Nursing room

A serene nursing room is located on the ground floor, D-wing. It features comfortable seating with pillows for mothers and a refrigerator⁸³. The space is designed to offer privacy and calm, fostering a peaceful environment for mothers⁸⁴. You can contact the facility officer for more information on access procedures.

f) Library Resources

The Carnegie Mellon University **digital library** provides access to full-text databases, online journals, books, music and videos and online subject-specific search. Students can access the digital library resources at **library.cmu.edu**. Most library resources must be accessed through the **CMU Virtual Private Network**. A customized guide has been created for CMU-Africa students. Students can access this guide at the library. In addition, **hard-copy books** can be borrowed from the Academic Affairs Coordinator.

g) Available Heavy-Duty Printers for Student Use

Heavy-duty printers are available in two locations for continuous student use (24/7), offering

black and white printing, scanning, and copying services:

- **Location A303**
- **D-wing, Lower Ground Floor Quiet Space**

Should you require any support with using the printers, please send a support ticket to CMU-Africa IT Help.

h) Security

All students, faculty and staff will be registered for the **CMU-Africa Alert Emergency Notification Service**, which sends text messages and emails to registered phones and email accounts in the event of a campus emergency. Registrants will be contacted by the CMU Alert system only if there is a campus emergency. Questions regarding the CMU Alert service should be sent via email to IT Ticket.

5.4 Health Insurance

All CMU-Africa students are eligible to join the **CMU-Africa medical insurance plan**. To subscribe, students should fill a health insurance form provided during Orientation. The policy runs on an annual renewable basis from **September 1 through August 31**. CMU-Africa students who travel to Pittsburgh for a Semester exchange program are required to subscribe to the medical insurance plan and fulfill the immunization requirement. The Pittsburgh immunization guide can be found at the provided link.

5.5 Andrew User ID and Password

An official **Andrew User ID** is assigned to you upon enrollment and is required to access the Carnegie Mellon Web Portal, email, student account and other computing services. You will set up your confidential password upon your initial access. If you need help, contact the Help Center: africa-it-help@andrew.cmu.edu.

5.6 Email

All enrolled students are given a **G Suite account** that will allow email through Web Login, accessed with your Andrew ID and password.

5.7 Computing Services

Computing Services is responsible for the vision, policy making, planning, development, implementation and overall administration for computing, library, and related technologies in support of teaching, research, and administrative activities.

A. Student Laptop Policy

Each new CMU-Africa student is given the option of accepting a **CMU-Africa provided laptop** at the start of their degree program.

- The provided laptop is to be strictly for use during their studies at CMU-Africa.
- Upon completion of the degree, students must either **return the laptop** in good working condition or **purchase it at 25% of the original cost**.
- Students may decline the laptop if they have a personal one that meets or exceeds the specifications.
- The laptop comes with a **2-year warranty** that covers manufacturing defects but **not** accidents or negligence. Students are responsible for problems caused by accidents or negligence.
- For repairs, the student is responsible for taking the laptop to the vendor. The student pays for repair costs if the damage is not covered by the warranty.
- CMU-Africa aids with transportation of the damaged laptop to and from the vendor. A CMU-Africa driver may pick up the laptop from the vendor on the student's behalf if payment is not required.
- A **loaner laptop** is available for a maximum of **two weeks** while the primary laptop is repaired or replaced. Requests must be submitted to **IT Ticket** and cc the **Student Affairs Team** for approval.
- Two loaner laptops are available after working hours and during weekends, requested by emailing **africa-it-help@andrew.cmu.edu**¹²¹.
- The CMU-Africa Student Services Officer handles cases where a student is unable to cover the cost of laptop repair.

B. Stolen Laptop Policy

- Students must exercise care to prevent loss.
- **Stolen laptops will not be replaced by CMU-Africa.**
- A stolen laptop must be reported within **24 hours** to the **CMU-Africa Student Services**

Officer and include a **Police Incident Report/Case number**.

- A surcharge of **25% of the cost of the laptop** will be required to obtain clearance for unrecovered stolen laptops.
- Failure to report a missing laptop to the Police and CMU-Africa will result in the student having to pay the **full cost of the laptop**.

C. Computing Policy

This policy sets forth guidelines for responsible and respectful use of the campus network and computing facilities by all users (students, faculty, staff, etc.), including the use of resources accessible through Carnegie Mellon's connection to the Internet. It applies to all computing facilities owned, leased, operated or contracted by Carnegie Mellon University. University members are responsible for acting in compliance with all applicable laws and university policies. Students must review the policy in its entirety and return the acknowledgement form to the Student Services Officer by the end of orientation.

D. Computing Best Practices

Students are asked to commit to the following best practices:

1. **Use a strong password or passphrase.** Never write it down or share it.
2. **Never leave your computer unattended in public locations.**
3. **Keep your computer's software up to date.** Configure automatic security updates.
4. **Safeguard your computer with antivirus software and a personal firewall.** Configure anti-virus software to update automatically every day.
5. **Safeguard institutional data and your own personal data.** Avoid storing sensitive data on easily misplaced media unless encrypted. Back up critical data using Box or G Suite's Drive.
6. **Think before you click.** Be cautious of hyperlinks and never open unexpected email attachments. Learn to recognize phishing traps.
7. **Treat your mobile device like any other computer.** Your cyber security pledge applies to your mobile devices.
8. **Report suspected security concerns immediately.** Contact the Help Desk immediately at africa-it-help@andrew.cmu.edu if you suspect a compromise or breach.

9. **Do not share copyright protected materials without authorization.** Exercise caution with file sharing applications

5.8 Computing Security

The Information Security Office (ISO) is responsible for directing efforts to maintain the security of data and integrity of computing devices on campus.

a) Securing your laptops and devices

Students must protect their machines against viruses, worms, Trojans, and break-ins.

b) Accessing the Network

Students can access network resources (Internet, email, Canvas, library resources) through the **campus wireless network**.

c) VPN

CMU-Africa uses **Cisco AnyConnect Virtual Private Network (VPN)** client for secure connection to Carnegie Mellon resources off-site. **VPN does not eliminate the need for an Internet Service Provider (ISP)**; you must have a valid internet connection first. Detailed information and usage guidelines are available on the computing services website.

5.9 CMU-Africa Canvas

Canvas (<https://canvas.cmu.edu/>) is a web-based course-management system. It is an academic resource center allowing instructors to provide course materials, engage in virtual chats and forums, and host online quizzes. Students use Canvas to:

- View course registrations, syllabus, and grades
- Access course information and documents
- Submit and upload course assignments
- View staff and faculty announcements
- Contact instructors and fellow students via email

Contact the Canvas Support Team for technical assistance at **canvas-help@andrew.cmu.edu**.

5.10 CMU-Africa Wellness Center

Students are encouraged to use the individual and group services offered. Confidential in-person and virtual counseling and mental wellness sessions are offered by appointment; contact **Justine Mukamwezi**.

5.11 Counseling and Psychological Services (CaPS)

The CaPS located at the CMU Pittsburgh campus offers confidential **virtual** well-being counseling and mental wellness sessions by appointment to support domestic and international students with their transition to university student life

5.12 Student Organizations

The **CMU-Africa Student Guild** is an elected student leadership organization. Students are encouraged to get involved in the Guild and other **Student Clubs**. The student clubs are managed by the Student Guild. The Student Affairs staff support and guide the Guild and Clubs.

6 Advising

6.1 Role of an Academic advisor and Advisor Assignments

The **Academic Advisor's** primary role is to ensure students adhere to their academic plan for timely degree completion. They also assist with:

- Course registration, withdrawal from courses
- Academic and personal challenges that may impact degree completion
- Transfer or request a leave of absence from university
- Fulfill enrollment verification requests, and other related matters

Newly admitted students are assigned a **Faculty Advisor** during the Student Induction Program¹⁷⁸. Graduate students should meet with their academic advisor during the Student Induction Program and/or the first week of the semester.

6.2 Faculty Advisor and Academic Advisor

All enrolled students are assigned both a **Faculty Advisor** and an **Academic Advisor**.

- **Faculty Advisors** respond to questions about specific degree programs (MSIT, MS EAI, MS ECE). They can also assist with course selections, career pathways, doctoral studies

advice, and support to ensure persistence and degree completion.

- Students are expected to schedule a meeting with their advisors within the **first week of class** and prior to course registration week.
- Students are expected to complete their degree plan and share it with faculty advisors ahead of the meeting.

6.3 Faculty Advisor/Advisee Collaboration

A faculty advisor offers guidance throughout a graduate student's academic and professional development. They help with course selections and research endeavors, provide expert advice, and facilitate professional growth through networking and conference participation.

Processes involved in successfully creating an advising session:

1. New students are assigned advisors at the beginning of the semester.
2. Students schedule a meeting with their advisors within the first week of school resumption and course registration week.
3. Students complete and share their degree plan with the faculty advisor ahead of the meeting.
4. A one-on-one meeting is held once faculty confirm availability.
5. Subsequent meetings can be scheduled to check on or review progress and the student's plan.

Sample topics for advising sessions include:

- Advising on classes, research methods, writing, publication process, conference presentations, thesis writing and presentation, and job search.
- Research management, time management, and work expectations.
- Research project assignment, reporting, budgets, safety, publication expectations (authorship, submission readiness), monitoring integrity, and ethical responsibilities.
- Attending conferences and meetings, including funding resources and representation protocols.

- Respect and confidentiality, including research projects and group members.
- Communication, including timely responses, conflict resolution, and defining timelines/expectations.

Research Requirement: Students undertaking research must have the research proposal endorsed by a faculty advisor and approved by the Director of Academics before starting. Research advisors (supervisors) are then responsible for advising and continuous tracking of progress.

6.4 Review/Redress of Academic Conflicts

Graduate students should first seek an **informal resolution** of all concerns within the applicable department or program²⁰¹. If an informal resolution cannot be reached, the formal procedures outlined in the Summary of Graduate Student Appeal and Grievance Procedures (found on the Graduate Education Resource webpage) must be followed. These procedures apply to all graduate programs of the University.

7 Master's Degree Requirements

7.1 Residency Requirements

International students must fulfill the Government of Rwanda's Immigration requirements.

- The student visa application requires an original copy of a **police clearance certificate or certificate of good conduct** from the applicant's current country of residence.
- International students must apply for a student visa within **15 days of arrival** in Rwanda.
- After obtaining the visa, the student must proceed to obtain a **residence card**.

7.2 Registration Process

7.2.1 Overview

Upon matriculation, students must meet with their **Faculty Advisor** to create an academic plan and register for courses. Students must proactively engage with their **Academic Advisor** and frequently review coursework and requirements on the Academics CMU-Africa webpage.

7.2.2 Student Responsibility

Students are solely responsible for managing the academic progression of their program. This includes ensuring they take necessary prerequisites and courses to complete degree requirements on time.

- Students use **Student Information Online (SIO)** to add courses, drop courses, and select units for variable unit courses.
- Students must be aware of all academic deadlines (add, drop, pass/fail, audit) found in The HUB's Academic Calendar or the CMU-Africa 2024-2025 Academic Calendar.
- Students concerned about not progressing should seek advice from their Faculty Advisor and guidance from the Academic Advisor.
- Students are **not permitted** to register for two courses held at the same time unless they have **consent from the course instructor**. The student must then inform the Academic Advisor to be given access to register.

7.2.3 Student Information Online (SIO)

SIO is the official platform for course registration.

- Students access SIO at **The HUB** with their Andrew ID and password.
- It has a **Course Planning Module** for viewing and modifying a semester class schedule before submitting registration.
- Registration is **mandatory** for credit, non-credit, and audited courses.
- Students are assigned a registration time for the next semester at the end of the first semester.
- Students with a tuition balance and/or fees greater than \$0.00 will not be permitted to register until the balance is paid in full.
- Students who are **not enrolled by the tenth day of class will be withdrawn from the university**.

7.3 Required Units for Degree Attainment

The number of units for a course indicates the average number of hours a student should devote per week (including class, readings, assignments).

Degree Program	Units	Semesters
Master of Science Information Technology (MSIT)	144	3 to 4
Master of Science Engineering and Artificial Intelligence (MS EAI)	144	3 to 4
Master of Science Electrical and Computer Engineering (MS ECE)	97	2 to 3
Master of Science Advance Study in Electrical and Computer Engineering (MS ECE)	133	3 to 4

- **Full-time status** students must enroll in at least **36 units** each semester.
- The **maximum** number of units allowed in a semester is **48 units**.
- A typical graduate course is **12 units** (12 hours per week). Full-semester courses can be 6 units.
- "Minis" (half-semester classes) are typically **6 units** (12 hours per week for half a semester).
- Once a student has **exceeded the minimum required number of credits by 24 units**, they are ineligible to register for courses and must either graduate or leave the university.
- Students in their last semester who have not satisfied graduation requirements must **petition the Director of CMU-Africa** to extend their time to complete coursework.

7.3.1 Master of Science in Information Technology (MSIT)

The MSIT curriculum offers three tracks:

1. **Professional Track:** For students interested in team project skills and becoming IT professionals.
2. **Research Track:** For students interested in a research career or a Ph.D..
3. **Entrepreneurial Track:** For students who want to develop their own entrepreneurship projects and technology business skills.

Curriculum Revision Note:

- The MSIT Class of **2025** should refer to the **Old MSIT curriculum**.
- The MSIT Class of **2026** can choose between the **Old and New MSIT curriculum**. This decision is final once taken and noted by the Academic Advisor.

7.3.1.1 Old MSIT Curriculum:

- **Graduation Requirements:** Accrue **144 units** (no more than 168), earn at least a '**C**' in **each course** counting toward the degree, and achieve a minimum **Cumulative Quality Point Average (CQPA) of 3.0** (average of a B grade).

Degree Components	Professional	Research	Entrepreneurship
Core Courses	60 Units	60 Units	60 Units
Elective Courses	60 Units	48 Units	60 Units
Practicum Project	24 Units		
Research		36 Units	

Project						
Entrepreneurship Project			24 Units			
Mandatory 3-Month Internship	0 Units	0 Units	0 Units			
Total		144 Units		144 Units		144 Units

Notes on Unit breakdown:

- **Professional Track Electives:** Can include up to 12 units of undergraduate credit (XX-300 to XX-599) and up to 15 units of MSIT Independent Study (04-980).
- **Research Track Electives:** Can include up to 12 units of undergraduate credit (less than XX-600). 6 units of Research Methods in Engineering (04-701) can partially satisfy the Engineering Research Project requirements.
- **Entrepreneurship Track Electives:** Can include up to 12 units of undergraduate credit (less than XX-600).

Core Courses (60 Units total): Mandatory to select **12 units from each** of the five core areas:

1. IT Entrepreneurship
2. Software
3. Applied Machine Learning
4. Secure IT Networks
5. Leadership and Professional Skills

Elective Courses: Students select **60 units** of elective courses. **Online elective courses cannot exceed 12 units.**

Sample Timeline (Four-Semester):

Semester	Courses/Activity	Units
:---	:---	:---
Semester 1 (late Aug - Dec)	Two core courses	24 units
	One elective course	12 units
Semester 2 (Jan - mid-May)	Two core courses	24 units
	One elective course	12 units
	A first year seminar	6 units
MSIT Internship (mid-May - mid-Aug)		
Semester 3 (Aug - Dec)	Master's Practicum	24 units
	One core course	12 units
	A second year seminar	6 units
Semester 4 (Jan - May)	Two elective courses	24 units
Total Units		144 units

7.3.1.2 New MSIT Curriculum:

- **Graduation Requirements:** Accrue **144 units** (no more than 168), earn at least a '**C**' in **each course** counting toward the degree, and achieve a minimum **Cumulative Quality Point Average (CQPA) of 3.0** (average of a B grade).

Degree Components	Professional	Research	Entrepreneurship
Core Courses	72 Units	72 Units	72 Units
Domain	36 Units	36 Units	36 Units

Courses						
Elective Courses	12 Units	0 Units	12 Units			
Practicum Project	24 Units					
Research Project		36 Units				
Entrepreneurship Project			24 Units			
Mandatory 3-Month Internship	0 Units	0 Units	0 Units			
Total		144 Units		144 Units		144 Units

Notes on Unit breakdown:

- **Professional/Entrepreneurship Track:** Domain or elective courses can include up to 12 units of undergraduate credit (XX-300 to XX-599) and up to 15 units of MSIT Independent Study (04-980).
- **Research Track:** Domain courses can include up to 12 units of undergraduate credit (less than XX-600). 6 units of Research Methods in Engineering (04-701) can partially satisfy the Engineering Research Project requirements.

Core Courses (72 Units total): Mandatory to select **12 units from each** of the six core areas:

1. Software Engineering
2. Applied Machine Learning
3. Cybersecurity
4. Network Technologies
5. IT Entrepreneurship
6. Leadership and Professional Skills

Domain Courses (36 Units total): Students must take at least 36 units from the domain courses list. Core courses not selected in the 72-unit requirement are automatically available for selection as domain courses.

Elective Courses: Students select elective course units to fulfill graduation requirements.

Sample Timeline (Four-Semester):

Semester	Courses/Activity	Units
:---	:---	:---
Semester 1 (late Aug - Dec)	Two core courses	24 units
	One domain course	12 units
Semester 2 (Jan - mid-May)	Two core courses	24 units
	One domain course	12 units
	A first-year seminar	6 units
MSIT Internship (mid-May - mid-Aug)		
Semester 3 (Aug - Dec)	MSIT Practicum/Entrepreneurship project	24 units
	One core course	12 units
	A second-year seminar	6 units
Semester 4 (Jan - May)	Two courses (one domain and one elective course)	24 units
Total Units		144 units

7.3.1.3 MSIT Internships and Projects

- **MSIT Internship (Mandatory):** A **10-12-week full-time internship** is required, typically 40 hours per week. The purpose is to gain technical and professional experience as a

short-term employee. The organization is expected to compensate students with a stipend. The requirement may be waived under extraordinary circumstances with CMU-Africa Director permission.

- **Master's Practicum Project (Professional Track):** A team-based effort to solve a real-world problem for a client, applying advanced engineering and project management skills.
- **Master's Entrepreneurship Project (Entrepreneurship Track):** A concrete project where students work in small teams to build and practice skills in developing IT ideas that create value. This track is selective.
- **Master's Research Project (Research Track):** Conducted under the supervision of a faculty research adviser. It involves a presentation and defense of a thesis and may lead to a scholarly paper.
- **Engineering Independent Study (Optional):** With faculty approval, a study on a pertinent topic. Can fulfill **3 to 15 units** toward the degree. **Cannot be used for the MSIT Research Track requirements.**

7.3.2 Master of Science in Engineering and Artificial Intelligence (MS EAI)

This degree provides a solid foundation in EAI and an opportunity to focus on cross-cutting areas and a significant engineering application project.

- **Graduation Requirements:** Total units required is **144** (see table in Section 7.3).

MS EAI Core Courses (72 Units total): Students must select **12 units from each** of the six categories:

1. Mathematical Fundamentals
2. Introduction to Artificial Intelligence
3. Introduction to Machine Learning
4. Data Analytics
5. Advanced Artificial Intelligence and Machine Learning
6. Engineering Artificial Intelligence Systems Designs

MS EAI Engineering Electives (48 Units total): Taken in consultation with an advisor to focus on AI, machine learning, data processing, or advanced courses in specific engineering domains.

- **36 units** must be **600 level or above** within the College of Engineering (departments listed in the table provided in the handbook).
- **12 units** can be:
 - College of Engineering Departments: **300 level or higher**
 - Any CMU department with Academic Advisor approval: **600 level or higher**
- Only technical and non-project courses count.

MS EAI Applied Engineering Project (24 Units total): Developed over several semesters, starting with a seminar class in the first semester on AI/Machine Learning applications in Africa. The second year involves implementation and testing for a **Capstone project**.

Project Course Name	Course Number	Course Units
Applications of AI in Africa	04-651	6
EAI Project Methods	04-653	6
EAI Capstone	04-950	12

7.3.3 Master of Science in Electrical and Computer Engineering (MS ECE)

The MS ECE degree at CMU-Africa is the same as the one offered in Pittsburgh. The Pittsburgh campus manages the degree and graduation requirements. For more information,

refer to the ECE website.

- **Graduation Requirements:** Total units required is **97** (see table in Section 7.3).

7.3.4 Master of Science in ECE Advanced Degree Program (MS-AD in ECE)

This is a **three or four semester program** (16 to 20 months) comprising **133 units** of graduate coursework. It allows students to take additional courses or execute an extended research project. For more information, refer to the ECE website.

Course Option Requirements (133 Units):

| Component | Units |

| :--- | :--- |

| ECE Core Courses | 60 Units|

| CIT Elective Courses | 36 Units|

| General Technical Elective Courses | 36 Units |

| Introduction to Graduate Studies | 1 Unit|

| Total | 133 Units |

Project Option Requirements (133 Units):

| Component | Units |

| :--- | :--- |

| ECE Core Courses | 48 Units|

| CIT Elective Courses | 24 Units |

| General Technical Elective Courses | 24 Units |

| Graduate Project Coursework | 36 Units|

| Introduction to Graduate Studies | 1 Unit |

| Total | 133 Units |

Undergraduate Coursework: A maximum of **12 units** of undergraduate coursework at the **300-level or higher** can qualify toward the core or elective requirements, provided the course is offered by the same department as an approved core or elective course.

7.4 Department Policy for Courses Outside the College of Engineering

Up to **12 units** can be either:

- Undergrad courses **300 and above** in the College of Engineering
- Courses **600 and above** from outside the College of Engineering, with Academic Advisor

approval

7.5 Teaching Requirements/Opportunities

a) Teaching Assistant Assignments

Teaching Assistants (TAs) are vital for course delivery. Applications open each semester via email, typically around the time the Schedule of Classes is published. Faculty can discuss course expectations, but the application and hiring process is managed through the **CMU-Africa Recruitment Portal**.

b) Teaching Assistant Eligibility Requirements

A student is considered for a TA position if they:

- Are a **current full-time student** (enrolled in at least 36 units).
- Complete the application via the Recruitment Portal.
- Will not be on academic probation.
- Have no past or current academic integrity infractions.
- Have taken and **passed the course with a grade B or higher** (except for new courses) or are otherwise well-qualified.
- Do not have another active contract with CMU (research assistant, IT, admin support, etc.) during the semester.
- Will not be on a Leave of Absence.
- Are **physically located in Kigali** and able to come to campus for all course meetings, recitations, labs, office hours, etc. (CMU-Africa students in Pittsburgh cannot TA CMU-Africa courses).

c) Teaching Assistant Training Workshops

Students are required to complete training during the **first semester** they are hired to work as a TA. The training is not a degree requirement but is necessary to serve as a TA. Failure to attend prescribed TA training can result in contract termination.

7.6 Internship Requirements and Opportunities

The Corporate Internship Program offers students valuable practical work experience, typically during the summer term between the first and second year, lasting for three months.

- **Participation is mandatory for MSIT students.** MSIT students must complete a **10-12-week full-time internship** (approx. 40 hours per week).
- Internship sponsors are required to provide **compensation** (stipend paid monthly).
- Internship offers are advertised on the **Corporate Internship Portal**.
- Projects must be challenging, relevant to students' career aspirations, and approved by a faculty representative.
- Students must submit an **internship report** at the end of the cycle.

Key Internship Timeline Dates (Example Year XX):

| Month | Activity |

| :--- | :--- |

| December 20XX | IT updates the Internship portal and student list|

| January 20XX | Portal onboarding for new students and partners; companies start submitting project proposals|

| Mid-February 20XX | Companies attend a Career Fair to meet and interview first-year students |

| March-April 20XX | Companies receive applications and schedule interviews |

| April 30, 20XX | Deadline for companies to select their final interns|

| April 15 - May 15, 20XX | Onboarding of interns (e.g., travel visa requests, work permit applications) |

| May 18 - June 1, 20XX | Students start their internship assignments |

| June 30 20XX | Close all offers on the portal |

Resources to Explore Potential Internships:

- CMU-Africa Corporate Internship Portal
- Handshake
- Career Services opportunities portal
- Career and Professional Development Center

8 Department Policies & Protocols

8.1 Petition Procedures

Students who have exceeded the minimum required number of credits for their degree

program by **24 units** are ineligible to register for courses and must either graduate or leave the university. Students in their last semester who have not satisfied graduation requirements must **petition the Director of CMU-Africa** to extend their time to complete coursework.

8.2 Department Policy for Withdrawing from a Course

After the drop deadline, students may **withdraw from a course** by the end of the **week of class**. A '**W**' (**withdrawal**) **grade** is assigned and appears on the student's academic record. Refer to the CMU-Africa academic calendar for deadlines.

8.3 Requirements for additional classes

8.3.1 Academic Skills Courses

Students in MSIT and MSEAI with a Duolingo English Test (DET) score below 120, an IELTS score below 6.5, or a TOEFL score below 93 are **strongly encouraged** to complete **12 additional units** of academic skills courses. These students will take:

- *Academic Skills for Engineers I* in the fall semester
- *Academic Skills for Engineers II* in the spring semester

Advanced Academic Skills for Engineers courses are optional.

Academic Skills Course Name	Course Number	Course Units	Semester Offered
Academic Skills for Engineers I	04-606	6	Fall
Academic Skills for Engineers II	04-607	6	Spring
Advanced Academic Skills for	04-608	6	Fall

Engineers I			
Advanced Academic Skills for Engineers II	04-609	6	Spring

8.4 "Grandfather" Policy

This policy applies to the MSIT program during the **2024/2025 and 2025/2026** academic years. Students admitted for **Fall 2024** can follow either the **old or the new MSIT curriculum**, but must choose which one during their first semester.

8.5 Variations to University Policies and Protocols

8.5.1 Change of Degree Program

Students are expected to graduate from the program they were admitted to.

- Students may switch their degree program between **MS IT and MS EAI** in extraordinary circumstances.
- It is **not possible** to change between MS IT/MS EAI and MS ECE without withdrawing and following the regular application process for the new program.
- A change between **MS ECE and MS-AD in ECE** is academically straightforward, but may have financial assistance implications. Contact your Academic Advisor for information.
- Students must complete a successful first semester before applying for a change.
- The **deadline for switching degree program is the 1st week of your 2nd Semester**.

8.5.2 Post Matriculation Guidelines

- **Return of University Property:** Students must return all borrowed CMU-Africa material (laptops, phones/tablets, books, etc.) and a signed clearance form is required prior to

their departure.

- **Career Services Graduate Destination Survey:** Recent graduates are asked to complete a short survey on their post-graduation plans (industry, PhD, etc.).

9 Grading & Evaluation

9.1 Grading Scale/System

CMU-Africa uses the CIT letter grade scale: 'A', 'A-', 'B+', 'B', 'B-', 'C+', 'C', 'C-', 'D+', 'D', and 'R'.

- CIT students **will not receive an 'A+' grade** on their transcript.
- Grades lower than a **C-** are considered a **"No Pass"** and will not count toward fulfilling master's degree requirements.

9.2 Department Policy on Grades for Retaking a Course

- Students who do not earn a passing grade may take a **different course** that fulfills the degree requirement.
- A student may retake a course if the grade earned did not meet the minimum grade requirement.
- All grades are recorded on the transcript and factored into the Cumulative Quality Point Average (CQPA).

9.3 Department Policy on Pass/Fail, Satisfactory/Unsatisfactory

All students are eligible to take a course with a **Pass/Fail option**. Students will be charged for the course tuition.

9.4 Department Policy for Incompletes

A grade of '**I**' (**incomplete**) may be given if the instructor agrees and the student, for reasons beyond their control, has been unable to complete the work, but the work completed to date is of passing quality.

- The instructor must specify the requirements and designate a **default letter grade**.
- Students must complete the work no later than the **end of the following academic semester**.
- The instructor must record the permanent grade by the last day of the examination period of that following semester, or the default grade will be assigned.

9.5 Independent Study

With faculty approval, students perform an Independent Study on a topic pertinent to their interest. It can fulfill **3 to 15 units** toward the MS IT / MSEAI degree.

- The Independent Study form must be signed by the student and faculty member.
- **Cannot be used to meet the requirements for the MS IT Research Track, MSEAI Applied Engineering Project or MS ECE Graduate Project.**

9.6 GPA Requirements and QPA Requirements for Graduation

9.6.1 Quality Point Average

To graduate, a student must have a **Cumulative Quality Point Average (CQPA)** of at least **3.0** (a mean grade of B) in required courses.

- Coursework or project units with a grade **lower than 'C'** **will not be considered to fulfill course requirements**.
- Courses with a grade lower than "C" are still calculated into the student's cumulative QPA.

9.7 Satisfactory Academic Standing

Academic Probation

- Students with a semester QPA **below a 3.0** will be placed on **academic probation**.
- During probation, the student must meet with the Academic Advisor and Faculty advisor to adhere to recommendations.
- A student is automatically removed from probation once their semester QPA is above 3.0.
- A student with a semester QPA lower than 3.0 at the end of **two consecutive full semesters** may be permanently dismissed at the discretion of the Director of CMU-Africa. Students can appeal this decision.

Student Suspension/Required Withdrawal Policy

Students should be familiar with the three types of suspensions:

- **Academic Suspension:** Result of poor academic performance or violation of academic regulations.
- **Disciplinary Suspension:** Result of serious personal misconduct, imposed by the Office of Student Affairs.
- **Administrative Suspension:** Result of failure to meet university financial obligations or comply with local health regulations.

Students on suspension may not: register for courses, attend classes, use campus facilities, participate in student activities, be members of student organizations, or have student jobs.

Disciplinary Probation

Students who commit an academic integrity violation are placed on **disciplinary probation** for the remainder of their academic program⁴⁷⁰. They are allowed to continue but must meet with the Academic Advisor.

9.8 Returning to Carnegie Mellon

When planning to return from a leave of absence, a student must complete the **Petition for Return from Leave of Absence form** at least **one month prior to the start of the semester**.

To return from a suspension, a student must have approval from:

- **Academic Suspension:** Director, CMU-Africa
- **Disciplinary Suspension:** Director of Enrollment Management and Student Success
- **Administrative Suspension:** Director of Enrollment Management and Student Success

Students can appeal any/all of these decisions.

10 Funding & Financial Support

10.1 Statement of Department Financial Support

CMU-Africa Financial Aid offers a variety of scholarships and fellowships for graduate students with an exceptional academic record and demonstrated leadership potential. The

Financial Aid Committee determines the amount of tuition aid and selects awardees.

10.2 Tuition sponsorship

Students with government, business or company sponsorship must provide the Associate Director of Student Affairs with a copy of their **sponsorship letter and/or financial guarantee** and sign the **info release form**.

10.3 Stipend

New students receiving a stipend must complete the onboarding process on **Workday by July 31** to receive their first payment at the end of August.

- The stipend is paid to enrolled students in **Rwandan francs** from **August to May** (Fall and/or Spring Semesters).
- It is paid monthly into a designated local bank account held in the Republic of Rwanda only.

10.4 Department Fees

CMU-Africa only charges the **tuition fee** and does not charge the student activity, technology or transportation fee.

Tuition for academic year 2024-2025:

- African students: **\$16,000**
- International students: **\$57,435**

Estimated annual cost of living:

| Cost of attendance | Low range | High range |

| :--- | :--- | :--- |

| Housing | \$1,800 | \$3,000 486 |

| Food | \$1,200 | \$1,500 487 |

| Transportation | \$180 | \$360 488 |

| Internet connectivity | \$120 | \$300 489 |

| Miscellaneous expenses | \$900 | \$1,350 490 |

| International student visa fee | \$20 | \$20 491 |

| Total for estimated living expenses | \$4,220 | \$6,530 492 |

Resources provided: Laptop, Textbooks, Technology fee, Health insurance, Campus shuttle service, Student life activities.

10.5 Travel/Conference and Research Funding

CMU Africa offers a targeted discretionary fund to support various research activities.

- **Student Summer Stipend Support:** A summer stipend for one current student per faculty member to work on a research or education project, typically during the internship period.
- **Student Conference Travel:** Each student can receive up to **\$3,500** to cover costs associated with attending and presenting research results at **one professional conference** during their academic program. These funds are available for up to **one year post-graduation**.

Application Process for Funding:

1. **Before Submitting Your Paper to a Conference:**
 - Meet with your Faculty Supervisor to review the paper and discuss academic standards.
 - Provide conference information and seek advice on its appropriateness.
2. **After the Paper Has Been Accepted:**
 - **Students:** Email **Mika Inamahoro** to request travel support.

- **Alumni:** Email **Esther Bugaiga** to request travel support.
- Request an **approval email from your faculty supervisor** confirming the venue is appropriate, the applicant will present, the faculty supervisor is a co-author, and the participation is valuable.
- Complete the **Google Form** (link provided by Mika Inamahoro or Esther Bugaiga), including a detailed breakdown of estimated expenses.
- Upload the approval email and the research paper.

10.6 Additional Sources of Internal & External Financial Support

- All CMU-Africa students are eligible for **need-based financial aid**.
- The generous support from the **Government of Rwanda and the Mastercard Foundation** enables comprehensive, need-based financial aid.
- Various sponsorship programs offer scholarships ranging from partial to full tuition coverage.
- **Part-time jobs** are available (teaching assistance, administrative assistance, IT assistance) and should **not exceed 10 hours per week** during the semester.

Hiring Seasons and Windows (20 calendar days):

- **Summer:** Starting in April's first workweek.
- **Fall:** Starting in July's first workweek.
- **Spring:** Starting in October's last workweek.

10.7 Requirements for the Continuation of Funding

- All sponsored students must maintain **full-time enrollment (36 units and more)** with a **3.0 cumulative GPA** and meet Satisfactory Academic Requirements.
- Sponsored students can take less than 36 units in the last semester.
- A student may **appeal a Financial Aid Satisfactory Academic Progress decision** by writing a letter explaining extenuating circumstances and defining what has changed to allow them to demonstrate satisfactory academic progress at the next evaluation.