



CATHOLIC UNIVERSITY INSTITUTE OF BUEA (CUIB)

THE ENTREPRENEURIAL UNIVERSITY



ASSOCIATE DEGREES

2018

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MESSAGE FROM THE PRESIDENT

My happy Duty as President of The Catholic University Institute of Buea (CUIB), **The Entrepreneurial University** is to thank the Group that has worked hard to produce this Second Edition of our Schools' Handbook. Our goal as a University has been to prepare a kind of executive Students' handbook or **vade-mecum** that is not only meant to enhance our student learning and experience but also to help all our partners and stakeholders to understand our unique mission and identity as an Entrepreneurial University based on the Focolare's Economy of Communion (EoC) philosophy. The EoC is a community of approximately 800 businesses world-wide that fosters a "culture of giving" within business so as to humanise the economy. By emphasising Catholic Studies in our core curriculum and EoC in our Entrepreneurial curriculum, we in CUIB have attempted to institutionalise a unique and distinctively Catholic Entrepreneurial University by fostering a socially and spiritually-based understanding of sound entrepreneurial skills, techniques and practices. This has not been an easy task especially as such a model is so new not only to our immediate environment but to the Cameroon Nation in particular and the African Continent at large.



I congratulate the Provost, Prof. Ndongko Wilfred and his immediate collaborators who have worked hard to make this dream come true. My special thanks go to the entire School of Information Technology family for their dedication and selflessness to help bring to fruition our vision for a vade mecum for our students in the School of Business.

The reader going through this handbook will notice that two things stand out – our 'Both/And Culture' versus 'Either/Or' and conflict-driven-profit or social impact, poor against rich and our entrepreneurial culture which runs through the academic heartland of all our schools. In CUIB, we emphasise both the **Heart and Soul** of our Entrepreneurial Education. The heart of our Entrepreneurial education is that we train our students to be academically competent in their areas of specialisation acquiring the right skills and techniques that are necessary for them to face a very competitive society. For instance, the needed skills within business of; reading a balance sheet, calculating cost of capital, providing statistical analysis, targeting and segmenting markets, managing group dynamics, generating creative thinking, mediating conflicts and so forth are imperative in CUIB. However, while such skills and techniques are important, (the matter of Entrepreneurial education), they are insufficient as they do not move students to an "Economy of Communion" which has the ability to foster not just economic development, but "integral human development". In our country, we continue to see and hear stories of corruption and misappropriation of funds meant for the common good. We continue to see and hear stories of Banks starting off well and collapsing because someone embezzled all the money. A true and genuine Entrepreneurial Education must also foster spiritual and moral values. The proper conduct of an entrepreneur is informed by his or her ethics, character and worldview. That is why in CUIB our curriculum is designed also to develop a moral compass that will enable our students to find the right solutions even when in uncharted territory and also address the ethical and economic challenges which they face every day in a coherent way. We think that this is the way forward for our nation if we have to effectively achieve **Vision2035** of our current President Paul Biya. This approach that CUIB

has adopted is truly the Catholic approach to life. It is not an either/or approach that enables the winner to take it all but an approach which is meant to be win-win. In CUIB it is about Faith and Reason, Spirituality and Work, prayer and hard work (study), vocation and business, leisure and study. This is what our Catholic faith teaches us. Think of the Eucharist where we have at the same time the Body and Blood of our Lord Jesus Christ, but also bread and wine. Is this an either/or situation? At first glance these seem to be mutually exclusive states, but with the eye and reason of our faith, it becomes a wonderful both/and. What is perceived to be opposed becomes a beautiful and complementary unity. In CUIB we have used this ancient insight of our mother Church and apply it to teaching, research and practice. In CUIB, we have what is called the “EoC hour”. This hour begins with the celebration of the Holy Mass at midday, the greatest act of communion. From 12.30 -1,30 pm EoC is reserved for sharing, meditation, ritual celebrations, conferences, birthdays, EoC base Group Work, tutoring, inspirational talks etc. Our interactions in the University; be they economic, civic, or personal, are not aimed at winner-takes-all, but at win/win collaboration.

Another important aspect that the reader of this Students’ Handbook will clearly appreciate is the fact that our entrepreneurial programs run through the academic heartland, that is, all the schools. Developing an entrepreneurial mind-set and taking the risk in doing business through the University’s Research and Business arm known as CUIB Centre for Entrepreneurship, Research and Innovation are the pathways that we have adopted in CUIB. It is my hope that this handbook will go a long way to foster this unique Catholic and Entrepreneurial Culture.

Ad multos annos!!!

God bless you.

In Jesus and Mary,

Fr. George Nkeze Jingwa (Edd)

President, CUIB



FOREWORD BY THE PROVOST

I am delighted to introduce the Second Edition of the School of Information Technology CUIB Students' Handbook. The handbook provides essential information about the activities of the school, which all students in the School or prospective students need to have.

The School of Information Technology, CUIB which has been in existence since 2010 is a Centre of Excellence for the production of highly competent, effective and efficient Business graduates to meet the man power needs of the nation in business and other related sectors.

All students on admission must register properly in their respective Departments. The procedures for Departmental registration are detailed in the Handbook of the School. It is therefore important that students have a copy of the School Handbook for detailed information about the procedures for registration, and other activities of the School. Screening of credentials is done at least two times before a student graduates; usually in the first year and in the final year. You must be ready to submit your original credentials for screening at the appropriate time, when the University calls for them.

The essential facilities needed by the students to pursue their academic careers peacefully and successfully are available in the University. You must attend lectures regularly and promptly, do all your assignments and submit them before the expiration of the deadlines given by your Lecturers; make the best use of the library and stay focused on your studies in order to actualize your academic ambitions. There are Academic Advisers in the Departments, whose responsibilities include guiding and counseling students in matters relating to their academic Programme. You should not hesitate to approach your Academic Advisers on any question or problem you may encounter about your academic work for necessary guidance.

The Minimum Graduation Requirements for each Programme in the School of Information Technology have been spelt out. This relates to the minimum number of foundation courses and core courses to be taken together with the minimum credit value. Upon graduation, students are expected to have validated all General University Courses, minimum required electives and other departmental requirements. Students are also expected to put in at least 100hours for volunteerism. In other to meet these requirements, you need to work hard, pray hard so that at the end, you will be found worthy both in character and in training to be awarded the Associate Degree of Science by the University.

I wish you success in your academic pursuits.

Prof. Wilfred A. NDONGKO
Provost

INTRODUCTION

The purpose of this Handbook is to accompany students in their academic/professional pursuit of knowledge in the School of Information Technology by clearly specifying the vision, mission, and objectives of the School along with possible career opportunities. The School of Information Technology offers a broad range of courses leading to the award of a Bachelor of Science degree in one of the following departments: Software Engineering; Cyber Security or an Associate of Science in the following: Web Design and Programming; Information Security.



The learning processes focus on the interdisciplinary values and professional qualities relevant in the growing and ever-changing field of Information Technology. The School also offers certification courses (OCA, Comptia Security+ among others) which are embedded in the curriculum of studies. In line with the entrepreneurial spirit of the university, the School of IT is divided into two arms:

- The teaching and formation arm headed by the Dean in collaboration with the Special Assistant to the Dean.
- The practical arm headed by the Coordinator for Entrepreneurial projects under the framework of the university's Center for Entrepreneurship, Research and Innovation (CUIB-CERI).

This Handbook contains a statement of the vision, mission and objectives of the School as well as the admission requirements. It contains a list of the School's faculty and staff, registration procedures, a description of the academic program including possible career paths. The graduation requirements are clearly specified as well as the list of courses with brief descriptions.

It is our hope that the book will be a true companion to enhance your stay in CUIB.

Dr. Felicitas Mokom
Dean-SIT

BRIEF HISTORY OF THE SCHOOL OF INFORMATION TECHNOLOGY (SIT)

The School of Information Technology was created as one of the four Schools that took off upon the creation of CUIB in May 2010. We are particularly proud of our pioneer head of School, *Mr. Azeyeh Xavier*, for the outstanding courage required for the take-off of such a reputable School, which is entering its sixth year, come October 2015.

Being a primal School in a Catholic Entrepreneurial University, the School of IT strives to integrate technology into the social, economic, spiritual, cultural and environmental lives of its students, staff and faculty. In accordance with the University's policies, the nomenclature adopted for academic levels as well as offices follows the American system. Thus first year students are referred to as *Freshmen*, second year – *Sophomore*, third year – *Junior* and fourth year – *Senior*. The enrollment of the school has been steadily on the rise. About 20% of the students are female and less than 10% are foreign students.

SIT sticks to high standards and control in its teaching and conduct of examination. Examination questions are vetted internally by the School and externally by the mentor university, the University of Buea thereby ensuring quality and relevance. The students of the School have been making remarkable attempts to engage in the concept of Entrepreneurship and Economy of Communion (EoC) as evident in the several projects that have been undertaken by different student groups.

I. SCHOOL of IT's PHILOSOPHY:

The academic philosophy of the School of IT, falls within the six key pillars of the Academic Philosophy of CUIB which are: Spiritual and Moral values, Entrepreneurial spirit, Scientific and Technical Know-how, Social, Environmental awareness and responsibility, Integrated education for life, Economy of Communion (EoC).

A major guiding philosophy of the School of IT is blending students acquiring a high level of theoretical and practical exercises together with a strong emphasis on spiritual and moral well-being.

II. VISION:

The vision of this school is to serve the community with quality IT services through participatory teaching, learning, research and development of Students, Staff and Faculty.

III. MISSION:

Through the integration of academic practices and Catholic teachings, we train focused IT professionals for services to their communities who are capable of responding to societal, technological, economic and global challenges.

IV. OBJECTIVES

The School of IT in CUIB is centered on:

- i. The training and formation of Information Technologists with a broad horizon, bursting with ideas to build the future of their immediate locality as well as that of the global community.
- ii. The active engagement in developing partnership with all providers and consumers of a wide range of IT services and products.
- iii. The training of graduates who will utilize their diverse acquired skills and resourcefulness to invent, design and realize course effective technology to meet local needs, to find creative and innovative solutions to Information Technology problems in Cameroon and beyond.
- iv. The training of graduates who will embrace cultural, societal, environmental and ethical issues in their work through our volunteerism, catholic education, entrepreneurship and civic education programs.
- v. The training of students to ensure excellence in multi-disciplinary and multi-cultural teams, who will demonstrate leadership skills and effective communication in their place of work.

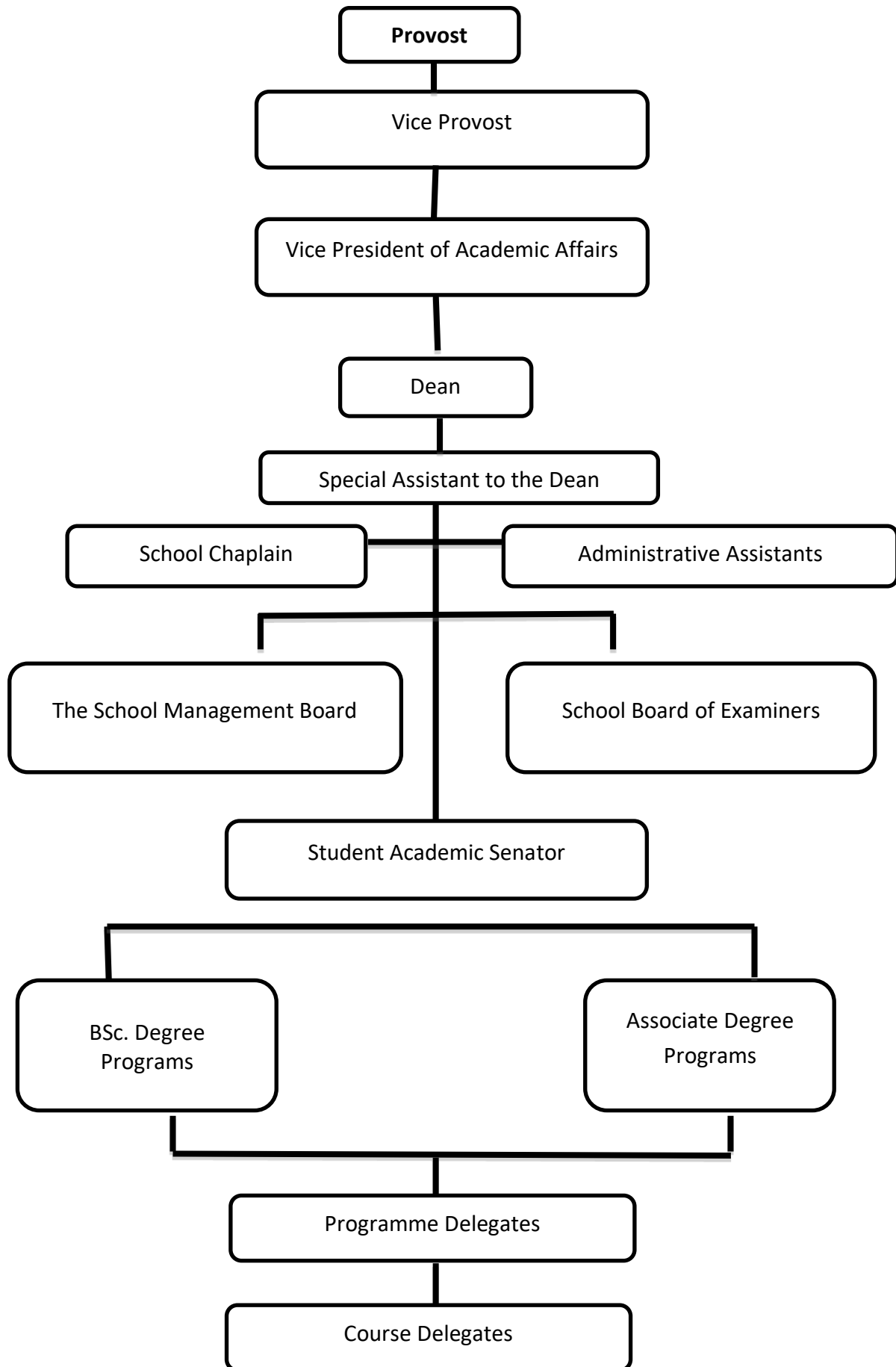
V. ADMINISTRATIVE STRUCTURE

Being part of a relatively young university, the School of IT has a simple administrative structure comprising of the Dean, Special Assistant to the Dean, Administrative Assistants, School Senator, Programme Delegates and Course Delegates. The School of IT is headed by the Dean, the Special Assistant to the Dean, Administrative Assistants and a School Chaplain who handle the smooth operation of the Schools.

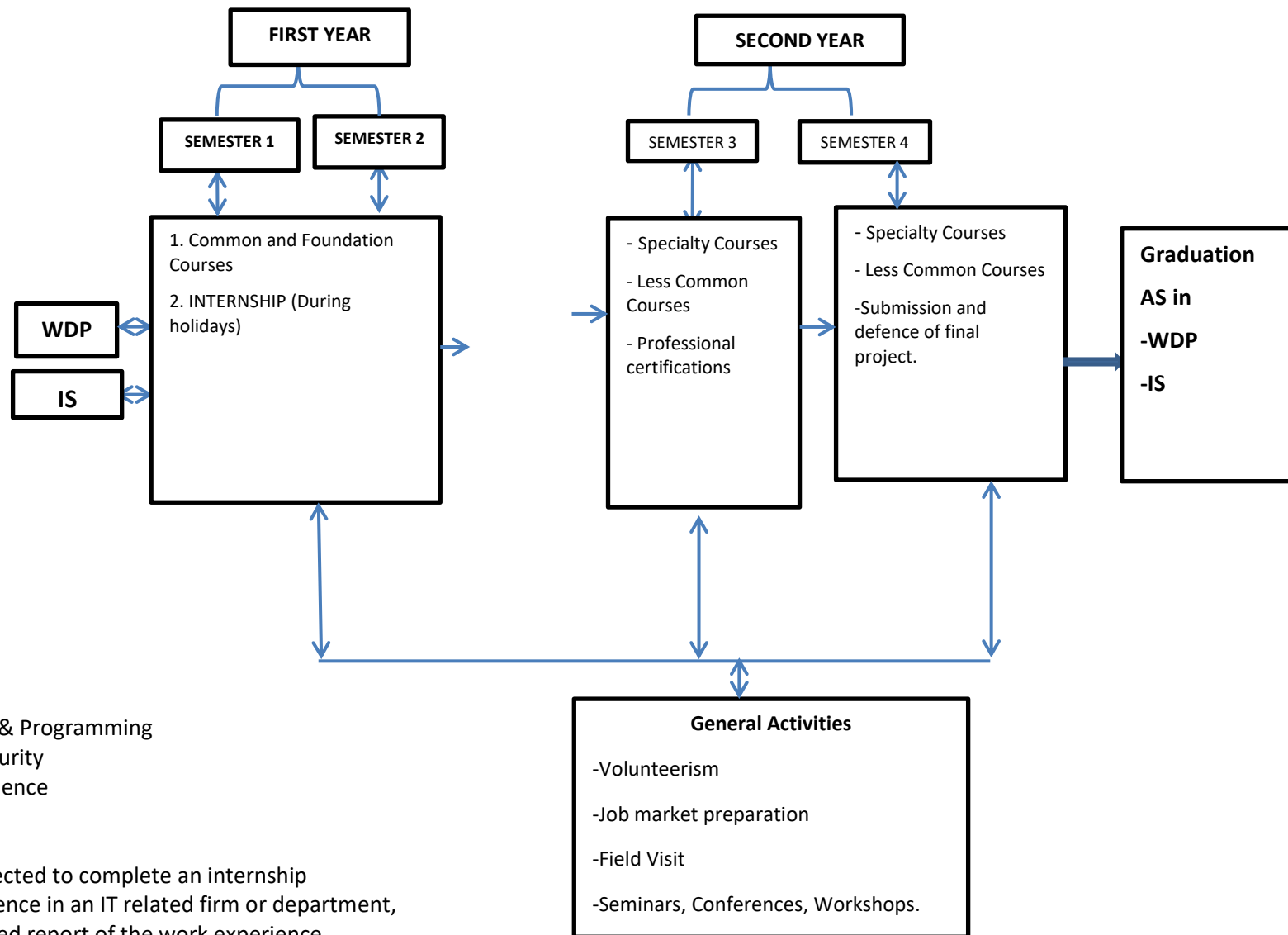
There is a Board of Examiners comprising of faculty of the School. The Board meets at appointed time based on the school calendar or summoned by the Dean to review or vet examination questions, consider or approve examination results. Faculty can also meet as need arises to share teaching experiences and to review/plan important school activities.

There is a School Management Board charged with managing the operations of the School. The responsibilities include: design and update program offered in the School, process applications and hire faculty, evaluate faculty for promotion and appointment, draw up the School's budget and approve expenses, approve capital expenses, approve payment of Adjunct Faculty and extra hours for Full Time. It is comprised of seven (7) members as follows: President or representative (chairman), Provost or representative (member), Dean (executive officer), two IT Faculty (members), CUIB Comptroller and Finance officer of IT The Board meets monthly.

Administrative structure (School of IT)



SCHOOL OF INFORMATION TECHNOLOGY ACADEMIC AND CURRICULUM MAP



VI. STAFFING

| SN | Names | Status | Qualification |
|----|-----------------------------|----------------------------------|---|
| 1 | Dr. Felicitas Mokom | Dean | PhD - Computer Science |
| 2 | Mr. Gilemond Nchiwo | Special Assistant to the Dean | M.Eng. – Computer Networks |
| 3 | Miss. Tiako Fani Michele | Full-Time Faculty | M.Sc - Computer Science |
| 4 | Mr. Ngatchu Damen | Full-Time Faculty | M.Eng. – Computing Machines, Complexes, Systems and Networks |
| 5 | Mr. Achankeng Peter | Full-Time Faculty | M.Sc – Physics |
| 6 | Mr. Nfongang Eric | Adjunct Faculty | M.Sc. – Information Technology |
| 7 | Mr. Yannick Yoppa Ngaha | Adjunct Faculty | M.Eng. – Computer Networks and Telecommunications |
| 8 | Mr. Nkemeni Valery | Adjunct Faculty | M.Eng. – Telecommunications |
| 9 | Dr. Ndambomve Patrice | Adjunct Faculty | PhD. - Mathematics |
| 10 | Dr. Divine Anye | Adjunct Faculty | PhD. – Cyber Security |
| 11 | Mr. Bisong Emmanuel | Adjunct Faculty | MEng. – Computer Networks and Telecommunications |

VII. ADMISSION REQUIREMENTS AND DURATION OF STUDY PROGRAMS:

a. Admission Requirement

CUIB insists on two principles regarding admissions:

- i) **Vocational Competence**: Students should have a vocation or love for what they intend to study. Such vocational call may be subject to a thorough show of proof.
- ii) **Academic Competence**:
 - The applicant needs to have passed at least **4 subjects** in the **Ordinary “O” Level examination** and **2 subjects** at the **Advanced “A” Level Examination** in one sitting.
 - Other approved certificates include a valid Baccalaureate Certificate and any other proof of High School Education, recognized by the University's Senate.

- Students with foreign certificates **must** obtain an equivalent from the Ministry of Higher Education.
- A pass grade in either mathematics or physics or related subject in either the Ordinary level or Advanced Level or any equivalent certificates is recommended but not obligatory for admissions into the School of IT.
- Applicants with a non-English background will need to show proof of the fact that they can take courses in English; otherwise, they would be required to do an English Proficiency Test in the University.
- Applicants holding a higher national diploma might be exempted from certain courses following detailed studies of their files by the prospective departments.

b. Duration of Study Programmes

The School of IT offers a two-year Associate of Science degree program. Students who are exempted from certain courses upon admissions must however spend a minimum of two semesters in the university before graduation.

VIII. PROFICIENCY IN ENGLISH AND FRENCH

1. PROFICIENCY IN ENGLISH

The Catholic University Institute of Buea (CUIB), admits students from diverse language backgrounds. Candidates with a non-English Language background must however, show proof of their English Language proficiency, since English is the language of instruction at CUIB. Proof of language proficiency could be accomplished in the following ways:

- ❖ Potential students can present to the University, an Attestation of English Language Proficiency from a recognized institution
- ❖ Students who do not have the English Language Proficiency Attestation will be given the following options through which they can acquire this at CUIB Language and study abroad center:
 - i. Students may be required to take an **English Placement Test** at the beginning to ascertain their level of English Proficiency.
 - ii. They will be assigned to classes depending on their levels.
 - iii. Students will write an examination at the end of the course and successful candidates will be issued an **Attestation of English Language Proficiency**.

Students who wish to be fluent in the English Language have the privilege to continue with their classes.

2. PROFICIENCY IN FRENCH

Considering the fact that Cameroon is a Bilingual Country, i.e. **English and French**, the Catholic University Institute of Buea (CUIB) wish that their young entrepreneurs graduate as Bilingual Citizens. Therefore, the CUIB Language and study abroad center will organize classes for students without a French Language background. Entry requirements will follow same procedure as English Language Proficiency.

3. TOEFL GRE AND GMAT EXAMINATIONS

The CUIB Language and study abroad center will assist students who want to take internationally approved exams to enhance their preparedness for Graduate Admission in the United States of America. Among these will include:

- **TOEFL** - Test of English as a Foreign Language.
- **GRE** - Graduate Record Exams.

- **GMAT** - Graduate Management Assessment Test.

For registration procedures, please contact the Office of the Provost.

IX. REGISTRATION PROCEDURES

- i) Present Original of fee payment from bank, along with two copies to the Finance Office.
- ii) Both copies will be marked and stamped by the account receivable person. A copy of the stamped document will be given to the student.
- iii) Present this copy to the School, and obtain an Online Course Registration (OCR) Code.
- iv) After completing the online registration, print three (3) copies of Form A2 and present these for signature, together with the certified copies of your academic certificates and Birth Certificate for verification. These should be put in a hard folder.
- v) Collect a signed and stamped copy of your Form A2.
- vi) Keep and guard your CUIB documents (Receipts, Form A2, ID card, etc) very jealously.

Some registration policies

Students have a maximum of 7 courses per semester . In the case where courses are to be carried over, the student is allowed to do so for a maximum of 8 credits per semester alongside with the current year courses. If the student has more than 8 credits to carry over, the courses concerned should be carried over and registered as they will have priority over the current year courses. The student can therefore register for some courses of the current year in addition, hereby considering a maximum of 10 courses to register for in a given semester.

X. PROGRAM RATIONALE

The School introduces two-year Associate of Science degree programs. Two programs are offered: Web Design and Programming; Information Security. The programs prepare students morally, educationally and holistically for the award of the Associate of Science Degree. The courses are designed to provide effective and regular contact hours between the students and the facilitators. The latter are seasoned lecturers of repute and/or active professionals who have studied and/or worked in many parts of the world. The students are hereby exposed to a wide variety of socio-cultural, technological and academic backgrounds, necessary for the growing Information Technologist.

The two-year Associate of Science (AS) programs differs inherently from Science disciplines formerly offered as part of the HND programs. While the HND programs are exam-based, the continuously assessed AS program aligns with the BSc. Programs facilitating the transition of students from the two-year to the four-year degree for those who wish to continue their studies. The program also allows the School of IT to emphasize further on entrepreneurial skills, creating more practice-based courses for the two-year duration facilitating graduands entry into the corporate world. Furthermore, many students get an opportunity to embark on their career of choice in a shorter time-frame with the option of transitioning into further studies still within reach.

Another important rationale specific to Information Technology is the fact that the field is significantly diverse, making it impossible to offer the many different viable areas as full fledged four-year degrees. The two-year programs provide the opportunity to accommodate programs with inherent career opportunities that can be completed in a shorter time frame.

XI. PROGRAM DELIVERY

Experts in the chosen disciplines will be selected for course delivery, with effective monitoring of the programs by SIT. Programs will be frequently evaluated to ensure that they remain aligned with their objectives and outcomes.

The programs are characterized by: *Internship, Hands-on Projects, Lab sessions and Workshops*. All these work in line with the philosophy of the entire CUIB community, which is clearly articulated in the University Guide and Calendar of Activities for the Academic year.

Internship

The internship represents a structured experience that allows the student to integrate and apply the theory, skills, and attitudes in a real-world work environment. It enables students to demonstrate professional and ethical behavior, to prepare and analyze the community and to develop a project which benefits the community. Each student is placed within an organization in accordance with his/her learning interests, in an environment that fits with the student's professional objectives. At the end of the internship experience the student prepares a presentation or report to help him/her examine and evaluate the internship experiences. The report offers the student an opportunity to reflect back on his/her experiences acquired; and on how he/she has changed, as a result of the internship. Internship opportunities allow students to increase their knowledge, problem-solving ability, ability to understand people in a work setting, as well as gain some other significant personal growth. In addition to the holiday internship carried out by the students at the end of the first year, internship experiences may include: Field Experience, Field Trips and Practicum.

Hands-on Projects and Lab Sessions

Every year, students are encouraged to be part of a hands-on project, either of their making or an ongoing school project. Most of the core courses involve practical lab sessions and courses offered in the second year of the program are project based.

Workshops

The School organizes a variety of workshops throughout the program providing the students with skills complementary to those gained via course delivery. These workshops are carefully selected from existing tools and technologies that best serve the Information Technology field at the given time.

XII. THE CATHOLIC UNIVERSITY INSTITUTE OF BUEA VOLUNTEER NETWORK PROGRAM (CUIB-VNP)

CUIB-VN Motto: *“Encouraging Community Involvement and Service”*

i. Purpose: The purpose of the CUIB Volunteer Network Program (CUIB-VNP) is to encourage students' community engagement and service. The CUIB-VNP recognizes and understands the civic and social challenges of our local and national communities. Our philosophy is grounded in the commitment of a lifelong ethic of service following the mission of CUIB: *“to prepare professional servant leaders with moral and spiritual values to contribute to the sustainable development of their communities”*.

ii. Aims and Objectives: The CUIB-VNP helps to:

1.) Identify service opportunities and activities for students in Buea and the surrounding communities in which the various CUIB campuses are located. The service opportunities and

activities enable students to fulfill one of the general criterion for graduation (100 hours of Volunteerism).

- 2.) Coordinate events and services throughout the school year to address community needs and to educate about social issues.
- 3.) Create opportunities for students to experience social change and servant leadership in action.
- 4.) Understand social-justice issues and the need for both individual and systemic change to make a positive impact in communities.
- 5.) Support student-led initiatives to address community needs.
- 6.) Enable students to realize that community service experiences can and should complement academic coursework (Service – Learning).
- 7.) Promote orientation, training, and reflection in every service experience.

The CUIB Volunteer Network Program (How it Works!)

Volunteer Coordinators and Facilitators will work with volunteer communities or agencies to identify individual and group service opportunities that suit students’ interest and skills.

Getting Started

Students or student groups interested in particular community services shall contact the Volunteer Coordinators and Facilitators, who shall assist them in recording their volunteer hours.

To get started, identify CUIB Volunteer opportunities and activities, **and obtain** the volunteer Form from the School of IT. Students are advised to check out weekly or monthly volunteering opportunities through the Volunteer Calendar at the School of IT.

SUGGESTED LIST OF GENERAL VOLUNTEERING OPPORTUNITIES

1. Campus attraction and Animation.
2. CUIB community – Learning Engagement Forums

XIII. COURSE ASSESSMENT AND GRADING SYSTEM

i. Course Evaluation System in CUIB

In CUIB, course evaluation has two main components: Continuous Assessments (CA) and Examinations. There has been significant review of the course evaluation system in CUIB to meet its mission and identity as a professional university with an Entrepreneurial culture. It began with the traditional 30% and 70% for CA and Exam respectively. Because this system is more content oriented, a 40% CA – 60% exam was introduced. However, to achieve a very balanced and authentic assessment of students learning that considers knowledge acquisition, and other skills needed by the student to face the challenges of the real world, a 50% CA and 50% exams ratio has been put in place as shown in the table below.

| Main component | Minor component | Mark allocation |
|-----------------------|------------------------------------|------------------------|
| Continuous Assessment | Class attendance and participation | 10 |
| | One or Two standardized test(s) | 20 |
| | Base group work | 10 |
| | Portfolio of student’s work | 10 |
| CA total | | 50 |
| Examination | End of semester examination | 50 |
| Total | | 100 |

For more information see CUIB 2013/2014 Bulletin on the CUIB Assessment philosophy and Model.

The grading system for courses as well as the entire degree program runs on a scale from 4.00 through to 0.00. A student might be granted an incomplete grade if he or she request for such a grade with documented evidence to justify the request. In such a case, the student is given the opportunity to complete the course at a later time. Students can either earn a pass, fail or withdrawal grade in courses with zero credit values which are required for graduation. A course is considered validated when an overall score of 50% or more is obtained. A student must score a grade point of 2.00 or more to earn credits for a given course. Table 2 presents a summary of the grading system within the school.

ii. Grading system

Courses can be graded in two ways: by percentage and by grade points. In terms of percentage, a course is considered pass when a score of 50% or more is obtained. Based on grade points, the grading system for a course as well as the entire degree program runs on a scale of 4.00 (A grade) through to 0.00 (F grade).Table 2 presents a summary of the course evaluation/grading. For individual courses, this scale includes options such as Incomplete, Withdrawal, Pass and Fail. A student must score a grade point of 2.00 or more to earn the allotted credits for a given course.

| <i>Total marks earned /100</i> | <i>Grade</i> | <i>Grade Point</i> | <i>Evaluation</i> |
|--------------------------------|--------------|--------------------|-------------------|
| 80 – 100 | A | 4.00 | Excellent |
| 70 – 79 | B+ | 3.50 | Very Good |
| 60 – 69 | B | 3.00 | Good |
| 55 – 59 | C+ | 2.50 | Fair |
| 50 – 54 | C | 2.00 | Average |
| 45 – 49 | D+ | 1.50 | Below Average |
| 40 – 44 | D | 1.00 | Poor |
| 00 – 39 | F | 0.00 | Fail |
| | I | | Incomplete |

Classification of Degree

In order to be considered for a degree, a student must have completed all elements of assessment for each course as listed in the corresponding programme regulations.

The table below presents the classification of degrees awarded.

| <i>Class of Degree</i> | <i>Range of GPA</i> | <i>Remarks</i> |
|------------------------|---------------------|-----------------|
| First Class Honors | 3.68 – 4.00 | Summa Cum Laude |
| Second Class Upper | 3.33 – 3.67 | Magna Cum Laude |
| Second Class Lower | 3.00 – 3.32 | Cum Laude |
| Third Class | 2.50 – 2.99 | Bene Probatus |

XIV. PROGRAM DESCRIPTIONS

A. COMMON PROGRAM OBJECTIVES

The AS programs are centered on endowing students with the necessary skills that facilitate direct entry into their careers. Students undergo one year on fundamentals of Information Technology both theoretically and practically and focus on the core discipline of choice in the second year.

All programs within the AS programs share certain objectives:

- **Communication Objective**

Graduates will be able to effectively communicate their ideas in both written and oral form understanding that communication is a cooperative process.

- **Analytical Objective**

Graduates will be able to analyze situations and successfully determine cause and effect.

- **Research and Presentation Objective**

Graduates will be able to use some contemporary research tools as well as more traditional methods to locate and analyze information and develop knowledge. They will also be able to format and present this information technically and non-technically.

- **Practical Objective**

Graduates will endure explicit practical sessions throughout course delivery, spend time in industry and complete a final year project as part of their program, ensuring their understanding of the application of their studies to real-world situations.

- **Lifelong Learning Objective**

Graduates will recognize that lifelong learning is essential to the ongoing process of professional and personal development.

A. WEB DESIGN AND PROGRAMMING

This two-year associate degree prepares the student with skills in Web Development, Publishing, Design, Programming, Relational Database Design and 2D graphics design. It is intended to give the student both the theoretical and practical skills to permit them stay relevant in the ever changing Information Technology world; especially in enhancing the web-presence of organizations and businesses.

Successful candidates will be offered an Associate of Science Degree in Web Design and Programming. The program is tailored to permit a student easily transition into a BSc. program in a related IT field.

SPECIFIC OBJECTIVES

In addition to the general associate degree program objectives, specific objectives of the program are:

- Develop algorithmic skills to enable automation of business processes.
- Obtain knowledge and skills for designing and implementing relational databases.
- Gain skills for designing the front-end for any website with easy maintenance.
- Understand and gain abilities to bind the front-end to the backend (database) using dynamic programming languages.
- Understand the dynamics of hosting, securing and optimizing websites in the Cloud.

OUTCOMES

- Apply programming, database, and Web technologies to solve and troubleshoot business and information technology problems.
- Analyse a real life business, design and implement a dynamic website for that business.
- Develop a logical approach to solving problems, developing algorithms and using a programming language to implement.

CAREER OPPORTUNITIES

Upon completion of the Website Design and Programming Associate Degree, graduates will be prepared for careers such as:

- Graphic designer
- Web designer
- Web developer
- Programmer
- Webmaster
- Database designer and administrator
- Multimedia programmer
- Multimedia specialist
- Web content manager

PROGRAM COURSE STRUCTURE

| Course Code | Course Title | Course Type | Credit Value | Comment |
|----------------------------|--|-------------|--------------|---|
| Semester 1 (Year 1) | | | | |
| SIT 101 | Introduction to Information Technology | C | 6 | |
| SIT 113 | Computer Programming I | C | 6 | |
| SIT 121 | Introduction to Unix | C | 6 | |
| SIT 209 | Cyber Law | C | 6 | Join 2 nd year BSc. students |
| MIT 107 | Mathematics I | E | 6 | |
| MIT 105 | Discrete Mathematics | C | 6 | |
| ENG 101 | Use of English I | U | 1 | |
| FRE 101 | Use of French I | U | 1 | |
| SPT 101 | Sports I | U | 0 | |
| ENP 101 | Entrepreneurial Project I | U | 2 | |

| | | | | |
|-----------------------------|------------------------------|--------------------|---------------------|---|
| AS 101 | Search of Happiness | U | 2 | |
| AS 121 | On Campus Placement | U | 1 | |
| AS 111 | Spiritual Exercise | U | 0.5 | |
| MAX SEMESTER CREDITS | | | 43.5 | |
| Course Code | Course Title | Course Type | Credit Value | Comment |
| Semester 2 (Year 1) | | | | |
| SIT 118 | Information Systems I | C | 6 | |
| SIT 122 | Computer Programming II | C | 6 | |
| SIT 218 | Web Technologies | C | 6 | Join 2 nd year BSc. students |
| MIT 104 | Mathematics II | C | 6 | |
| ENG 102 | Use of English II | U | 1 | |
| FRE 102 | Use of French II | U | 1 | |
| SPT 102 | Sports II | U | 0 | |
| ENP 102 | Entrepreneurial Project II | U | 2 | |
| AS 102 | Sexuality, Love and Marriage | U | 2 | |
| AS 122 | On Campus Placement | U | 1 | |
| SIT 130 | Internship | C | 8 | Done during holidays of first year, and credited only in 3 rd semester |
| MAX SEMESTER CREDITS | | | 39 | |
| Course Code | Course Title | Course Type | Credit Value | Comment |
| Semester 3 (Year 2) | | | | |
| SIT 203 | Object Oriented Programming | C | 6 | |
| SIT 219 | Web Programming and Graphics | C | 6 | New |
| SIT 213 | Information Systems II | C | 6 | |
| SIT 435 | Software Engineering | C | 6 | Join 3 rd year BSc. students |
| MIT 201 | Numerical Analysis | C | 6 | |
| ENP 201 | Entrepreneurial Project III | U | 2 | |
| AS 201 | Church and Culture | U | 2 | |
| AS 211 | Spiritual Exercise | U | 0.5 | |
| AS 221 | Off Campus Placement | U | 1 | |
| MAX SEMESTER CREDITS | | | 35.5 | |

| Course Code | Course Title | Course Type | Credit Value | Comment |
|-----------------------------|---|-------------|--------------|---|
| Semester 4 (Year 2) | | | | |
| SIT 220 | Website Frameworks, Optimization and Security | C | 6 | CMS, SEO, Website Optimization, Hosting and Security (new) |
| SIT 290 | Final Project | C | 16 | A project with deliverables to be defended |
| AS 202 | Report on Catholic Studies Perspective on Off Campus Experience | U | 2 | |
| | | | | |
| MAX SEMESTER CREDITS | | | 24 | |
| | | | | |

TOTAL CREDITS: 142

A student may still be offered an associate degree if he/she can earn up to **120 credits** provided they have validated all core courses.

C – Core Course

E – Elective Course

COURSE DESCRIPTIONS

Semester 1 (Year 1)

SIT 101: Introduction to Information Technology

This course introduces students to the technologies that are fundamental in the gathering, processing, representation and storage of information. The course covers fundamentals of computer hardware, software, programming and its tools, data communications, databases and SQL, networks, the Internet and its tools and computer security. Some insights into future trends are provided.

SIT 113: Computer Programming I

This course introduces students to the area of computer programming, taking into consideration the fact that this might be the first course on computer programming that the student is encountering in his / her educational career. Emphasis shall be placed on algorithmic thinking, algorithm representation and introduction to a specific programming language.

SIT 121: Introduction to Unix

This course covers UNIX file and operating system. It equally covers an understanding of multi-user and multitasking concepts. Editors, X-windows, Awk, email, Internet commands, shell commands and shell scripts are also treated in this course. Projects, which provide practical experience, are

completed as part of the homework requirements.

SIT 209: Cyber Law

This course presents a legal perspective of the cyber space and the activities within it. Topics such as Infractions in cyberspace, Investigating and prosecuting crime in cyberspace, on-line contracts, Trademark issues in Cyberspace, On-line service liability issues, Privacy issues, Laws tackling cyber criminality as well as an examination of some international bodies working to curb cyber criminality are covered with this course.

MIT 107: Mathematics I

This course serves as the first mathematics course for freshmen in the university and covers introductory notions to calculus. The course builds on advanced level mathematics to further strengthen students' analytical view to mathematical problems. The course focuses on drilling students to formulate mathematical problems as well as equipping them with techniques for solving these problems. Topics such as Mappings, Functions, differentiation and Integration are treated in this course.

MIT 105: Discrete Mathematics

This course introduces the study of finite systems as an increasingly important concept in the computer age and a founding pillar in information technology. The digital computer is basically a finite structure, and many of its properties can be understood and interpreted within the framework of Finite Mathematical Systems. The course covers formal mathematical objects like Sets, Graphs, Matrices, recurrence relations and examines how these objects arise in computer science-related problems.

Semester 2 (Year 1)

SIT 118: Information Systems I

This course introduces the concepts of information systems as used in businesses and covers areas like definition, classification, components of a computer-based Information Systems, the place and role of Information Systems in various management structures and at various levels of management as well as analysis of IS. Introduction to database concepts are equally covered. Students will practice working with ISs and be able to perform simple create, read, update and delete operations on computer-based information systems.

SIT 122: Computer Programming II

This course is a follow up of the computer programming I course. It deepens the student's knowledge in computer programming through rigorous exercises / mini projects and covers topics like data types, data structures, programmer-defined data types, pointer, dynamic data structures and memory management from a programming perspective. A prerequisite for this course will be a D+ in Computer Programming I.

SIT 218: Web Technologies

This course covers the technologies that are involved in the representation of information on the web. Technologies such as Hyper Text Mark-up Language (HTML), Cascade Style Sheet (CSS), JavaScript for client-side scripting and a server-side scripting programming language such as PHP will be covered from a practical perspective.

MIT 104: Mathematics II

This course is a continuation of the mathematics I course. It covers introductory notions on linear algebra such as matrices and their determinants, vector spaces, linear transformation and solutions to systems of linear equations. Emphasis is on how these notions are useful in handling large problems in systems analysis.

SIT 130: Internship

This course initiates and integrates students into professional life. The course is taken off-campus in any IT related firm or organization under supervision from the School of IT. Students are expected to appear at their place of work and spend a full working day, dressed professionally and carry out tasks as required by the organization. At the end of the internship, the students are expected to present and defend an internship report which they would submit to the school towards evaluation.

Semester 3 (Year 2)

SIT 203: Object Oriented Programming

This course introduces students to the object oriented programming paradigm and concepts such as classes, objects, methods, interfaces, packages, inheritance, encapsulation, and polymorphism. Emphasis is on the application of these concepts to practical problems. A prerequisite for this course will be a D+ in the Computer programming II course.

SIT 219: Web Programming and Graphics

This course focuses on giving students skills in advanced web programming using any dynamic web programming language such as PHP, ASP, Python, Ruby, etc. The student will be expected to use a dynamic programming language that binds the frontend of a website to the backend of a website. The student will equally be able to develop web-based applications for some common problems.

2D image operations like resizing, shading, cropping, recoloring, etc. will also be taught in this course with the use of professional photo editing tools such as Photoshop, Photo Illustrator, CorelDraw, etc. Text overlaying, and superposition of image layers will also be covered. Types of photos and their properties will equally be discussed. Basic animations with text may be covered.

SIT 213: Information Systems II

This course builds on the knowledge acquired in Information Systems I and teaches students how to design, construct, test, and debug databases using an Integrated Development Environment (IDE). Emphasis is on the design of databases that meet the needs of its users as well as the methodology used.

SIT 435: Software Engineering

This course provides students with a broad understanding of software engineering principles and their application to the development and management of software systems. The course will initiate

students to the different software process models, project management, software requirements engineering process, systems analysis and design as a problem-solving activity, UML, key elements of analysis and design, software testing, software quality etc. Students equally gain the skill of working in a team through group projects.

MIT 201: Numerical Analysis

This course covers some elementary numerical methods that are frequently used in computations. Topics such as errors and mistakes in computation, iterative solutions to equations, interpolation, Gaussian elimination, numerical integration and differentiation, etc. shall be covered in this course. A prerequisite for this course will be a D+ in the Mathematics II course.

Semester 4 (Year 2)

SIT 220: Website Frameworks, Optimization and Security

This course provides a broader framework on web development. It introduces the student to content management systems such as WordPress, Joomla, Magento, etc. and outlines the advantages/disadvantages of CMS in general. It equally drills the student on how to upload and configure a CMS on a webserver, and possibly manage a website built with such a CMS.

The student will also learn some techniques on search engine optimization, website hosting and cPanel Management and some Add-on features like SSL, Firewall, Email tracker, etc.

SIT 290: Final Project

The student is expected to select a real world problem, analyze, design and implement the solution using web technologies available. The student will be expected to present a write up with all standard sections. At the end of the semester, the student will also be expected to make a 10 minutes PowerPoint presentation of his/her project. Students will be assigned supervisors at the beginning of the second semester.

Student evaluation of project deliverables will mostly focus on how best the student has exploited the relevant technologies, maintained a consistent programming standard, documented the codes/scripts, etc.

B. INFORMATION SECURITY

Information security professionals are very much in demand given the vital need of enterprises and organizations to protect their information. This two-year associate degree prepares the student with skills in wired and wireless network security, vulnerability assessments and information assurance. Students master configuring and administering networks and servers in real and virtual environments. Students can gain an entry-level role in the field of cyber and information security. The program is intended to give the student both the theoretical and practical skills to permit them stay relevant in the ever changing Information Technology world.

Successful candidates will be offered an Associate of Science Degree in Information Security. The program is tailored to permit a student easily transition into a BSc. program in a related IT field.

SPECIFIC OBJECTIVES

In addition to the general associate degree program objectives, specific objectives of the program are:

- Design and implement secure Local Area Network and Wide Area Network for an institution or business.
- Assess and evaluate risks, vulnerabilities and threats in computer systems
- Setup and secure computer networks with focus on the trending platform virtualization technologies.

OUTCOMES

- Demonstrate familiarity in network topologies, routing, switching and network security
- Build and operate secure computer networks
- Troubleshoot, monitor and audit computer networks.

CAREER OPPORTUNITIES

Upon completion of the Information Security Associate Degree, graduates will be prepared for careers such as:

- Information security engineer
- Network security specialist
- Security administrator
- Cyber auditor
- Information assurance specialist
- Systems administrator
- Network administrator

PROGRAM COURSE STRUCTURE

| Course Code | Course Title | Course Type | Credit Value | Comment |
|-----------------------------|--|-------------|--------------|---|
| Semester 1 (Year 1) | | | | |
| SIT 101 | Introduction to Information Technology | C | 6 | |
| SIT 113 | Computer Programming I | C | 6 | |
| SIT 121 | Introduction to Unix | C | 6 | |
| SIT 201 | Computer Networks and Communication Technologies | C | 6 | Join 2 nd year BSc. students |
| SIT 209 | Cyber Law | C | 6 | Join 2 nd year BSc. students |
| ENG 101 | Use of English I | U | 1 | |
| FRE 101 | Use of French I | U | 1 | |
| SPT 101 | Sports I | U | 0 | |
| ENP 101 | Entrepreneurial Project I | U | 2 | |
| AS 101 | Search of Happiness | U | 2 | |
| AS 121 | On Campus Placement | U | 1 | |
| AS 111 | Spiritual Exercise | U | 0.5 | |
| | | | | |
| MAX SEMESTER CREDITS | | | 37.5 | |

| Course Code | Course Title | Course Type | Credit Value | Comment |
|-----------------------------|--|-------------|--------------|---|
| Semester 2 (Year 1) | | | | |
| SIT 122 | Computer Programming II | C | 6 | |
| SIT 222 | Internetworking with Routers and Switches | C | 6 | Join 2 nd year BSc. students |
| SIT 217 | Introduction to Information Assurance Concepts | C | 6 | Join 2 nd year BSc. students |
| MIT 106 | Algebra and Trigonometry | E | 6 | |
| SIT 102 | Computer Architecture | C | 6 | |
| ENG 102 | Use of English II | U | 1 | |
| FRE 102 | Use of French II | U | 1 | |
| SPT 102 | Sports II | U | 0 | |
| ENP 102 | Entrepreneurial Project II | U | 2 | |
| AS 102 | Sexuality, Love and Marriage | U | 2 | |
| AS 122 | On Campus Placement | U | 1 | |
| SIT 130 | Internship | C | 8 | Done during holidays of first year, and credited only in 3 rd semester |
| MAX SEMESTER CREDITS | | | 45 | |
| | | | | |
| Course Code | Course Title | Course Type | Credit Value | Comment |
| Semester 3 (Year 2) | | | | |
| SIT 395 | *** <i>Professional Certification course</i> | C | 12 | Join 3 rd year BSc. students |
| SIT 215 | Scripting Languages | C | 6 | |
| SIT 357 | Applied Wireless Network Security | C | 6 | Join 3 rd year BSc. students |
| SIT 445 | Network Security | C | 6 | Join 4 th year BSc. students |
| SIT 213 | Information Systems II | C | 6 | |
| ENP 201 | Entrepreneurial Project III | U | 2 | |
| AS 201 | Church and Culture | U | 2 | |
| AS 211 | Spiritual Exercise | U | 0.5 | |
| AS 221 | Off Campus Placement | U | 1 | |
| MAX SEMESTER CREDITS | | | 39.5 | |
| | | | | |
| Course Code | Course Title | Course Type | Credit Value | Comment |
| Semester 4 (Year 2) | | | | |
| SIT 224 | Networks and Servers: | C | 6 | New |

| | | | | |
|-----------------------------|---|---|-----------|--|
| | Virtualization and Administration | | | |
| SIT 226 | System Administration | C | 6 | New |
| SIT 290 | Final Project | C | 16 | A project with deliverables to be defended |
| AS 202 | Report on Catholic Studies Perspective on Off Campus Experience | U | 2 | |
| | | | | |
| MAX SEMESTER CREDITS | | | 30 | |
| | | | | |

*** Certification Courses:

1. *CompTIA Security +*
2. *Digital Forensics and Mobile Device Security*
3. *Cloud Computing and Data Center Design and Security*

TOTAL CREDITS: 152

A student may still be offered an associate degree if he/she can earn up to **120 credits** provided they have validated all core courses.

C – Core Course

E – Elective Course

COURSE DESCRIPTIONS

Semester 1 (Year 1)

SIT 101: Introduction to Information Technology

This course introduces students to the technologies that are fundamental in the gathering, processing, representation and storage of information. The course covers fundamentals of computer hardware, software, programming and its tools, data communications, databases and SQL, networks, the Internet and its tools and computer security. Some insights into future trends are provided.

SIT 113: Computer Programming I

This course introduces students to the area of computer programming, taking into consideration the fact that this might be the first course on computer programming that the student is encountering in his / her educational career. Emphasis shall be placed on algorithmic thinking, algorithm representation and introduction to a specific programming language.

SIT 121: Introduction to Unix

This course covers UNIX file and operating system. It equally covers an understanding of multi-user and multitasking concepts. Editors, X-windows, Awk, email, Internet commands, shell commands and shell scripts are also treated in this course. Projects, which provide practical experience, are completed as part of the homework requirements.

SIT 201: Computer Networks and Communication Technologies

This course covers the different layers of the OSI reference model and the TCP/IP model with emphasis on the role of each layer; describing transmission techniques, media and protocols associated to each layer as well as network topologies. Other topics such as Address classes and subnetting will be introduced in this course.

SIT 209: Cyber Law

This course presents a legal perspective of the cyber space and the activities within it. Topic such as Infractions in cyberspace, Investigating and prosecuting crime in cyberspace, on-line contracts, Trademark issues in Cyberspace, On-line service liability issues, Privacy issues, Laws tackling cyber criminality as well as an examination of some international bodies working to curb cyber criminality are covered with this course.

Semester 2 (Year 1)

SIT 122: Computer Programming II

This course is a follow up of the computer programming I course. It deepens the student's knowledge in computer programming through rigorous exercises / mini projects and covers topics like data types, data structures, programmer-defined data types, pointer, dynamic data structures and memory management from a programming perspective. A prerequisite for this course will be a D+ in Computer Programming I.

SIT 222: Internetworking with Routers and Switches

This course introduces configuration routers and switches to build multiprotocol internetworks. OSI reference model, basic LAN and WAN design, dial access services, TCP/IP protocol suites, IP addressing, subnetting, static and dynamic routing, and WAN technologies such as HDLC, PPP, Frame Relay, ATM and ISDN.

SIT 217: Introduction to Information Assurance Concepts

This course covers topics related to administration of network security. Topics include a survey of encryption and authentication algorithms; threats to security; operating system security; IP security; user authentication schemes; web security; email security protocols; intrusion detections; viruses; firewalls; Virtual Private Networks; network management and security policies and procedures. Laboratory projects are assigned as part of the homework requirements.

MIT 106: Algebra and Trigonometry

This course is designed for students needing mathematical skills; topics in this course are as follows. In the Algebra section: basic operations on real and complex numbers, fractions, exponents and radicals, Determinates, Solution of linear, fractional, quadratic and system equations. In the Trigonometry section: definition and identities, angular measurements, solving triangles, vectors, graphs and logarithms will be treated.

SIT 102: Computer Architecture

This course introduces the micro components that are interconnected for the functioning of a computer system. Very little emphasis is placed on the physics and electronics involved. The course covers the functioning of logic gates and combinational circuits and how they are used to implement Boolean functions which can be analyzed with truth tables and K-maps. Introductory notions in sequential circuits, timing diagrams and the design of registers and state diagrams are equally covered. Additional topics may include in a descriptive manner, the interconnections between combinational circuits (ALU, controllers, etc) sequential circuits (Registers, RAM, ROM, etc), Buses (data, address and control) and peripheral devices in a computer system. It equally introduces assembly programming using basic commands only.

SIT 130: Internship

This course initiates and integrates students into professional life. The course is taken off-campus in any IT related firm or organization under supervision from the School of IT. Students are expected to appear at their place of work and spend a full working day, dressed professionally and carry out tasks as required by the organization. At the end of the internship, the students are expected to present and defend an internship report which they would submit to the school towards evaluation.

Semester 3 (Year 2)

SIT 395: Professional Certification course

This course prepares students for one or more internationally recognized professional certifications examinations in the area of cyber and information security. It is the students' responsibility to register and take the certification exams. However, an end of course evaluation will be carried out and recorded in the students' Transcript. Certifications include CompTIA Security+, Digital Forensics and Mobile Device Security, Cloud Computing and Data Center Design and Security.

SIT 215: Scripting Languages

This course introduces students to the use of scripting and the scripting languages of Perl, Python, and Ruby on Rails. The class will cover the use of scripting to solve short problems, automate routine tasks, integrate across pieces of software, and prototype code ideas. The merits of code-complete design versus on-the-fly coding as well as coding and code documentation styles will be discussed. Tasks involving input/output, regular expressions, and file operations are included. Students are expected to fully script solutions for real-world tasks assigned as part of the course.

SIT 357: Applied Wireless Network Security

This course will explore the unique challenges presented by wireless networking, including the management of dual network devices (Bluetooth, 3G, 4G, and WiFi). Students will evaluate emerging business and technical initiatives, such as bring your own device (BYOD) and securely implement mobile IP networks based on IPv4, IPv6 and the 3GPP. Students will learn penetration testing strategies to effectively evaluate currently implemented security controls, utilizing cutting edge tools such as BackTrack 5, Vistumbler, Wireshark, and inSIDDer for network discovery and packet analysis. Additionally, students will be exposed to the site survey, network management and analysis capabilities of industry leading software such as Air Magnet, Ekahau and OmniPeek. Students are required to purchase an Alfa wireless adapter and acquire a wireless router.

SIT 445: Network Security

This course provides an academic backing to network security which students would have worked with during the work experience course. The course presents the need for and key concepts in

information security in relation to Hacking. It describes Security mechanisms and tools used at each layer of the TCP/IP model. This course will also help students to understand the security mechanisms used in the process of information exchange in a network, tools and technologies used to secure access to resources such as servers in a network and finally security of systems and applications.

SIT 213: Information Systems II

This practical course builds in Information Systems teaches students how to design, construct, test, and debug databases using an Integrated Development Environment (IDE). Emphasis is on the design of databases that meet the needs of its users as well as the methodology used.

Semester 4 (Year 2)

SIT 224: Network and Servers: Virtualization and Administration

This course introduces the student to server virtualization technologies, outlining clearly its advantages and disadvantages. It distinguishes between desktop virtualization and server virtualization. Students will go on to create virtual servers and virtual networks using a server virtualization OS like VMWare ESXi or Microsoft Hyper-V. This course also provides the student with a broader mindset on all that is necessary for a real network to function properly. The student will need to administer the different segment of the network towards optimizing performance which in today's world is the core of every network.

Students will keep track of some key domains or aspects of a network such as: the designing and planning of the network, setting up of the network, maintaining and expanding the network.

The student will also be able to exploit some standard server technologies like domain controller (DC) and learn how to setup one for an organization. They will learn to setup basic group policies in the DC and most importantly setup and configure common services like: FTP, Web Service, Proxy, Printer Sharing etc.

SIT 226: System Administration

This course focuses on giving students hands-on skills needed to set up and manage different computer and network systems and their resources. Students will learn aspects such as server management, print services, disk and file system management, directory services and managing users in operating system environments. Students will be given skills in installing and configuring services such as Domain Name System, local and Domain Group Policy, Internet security and acceleration server, Internet information services, DHCP, NFS, communications and networking.

SIT 290: Final Project

The student is expected to select a real world problem, analyze, design and implement a networking solution. The student will be expected to present a write up with all standard sections. At the end of the semester, the student will also be expected to make a 10 minutes PowerPoint presentation of his/her project. Students will be assigned supervisors at the beginning of the second semester.

Student evaluation of project deliverables will mostly focus on how best the student has exploited the relevant technologies, maintained consistent standards, documented the codes/scripts, etc.

XV. COURSE TERMINOLOGY

The following terminology shall be used for the different categories of courses:

- i) **Core:** A course specified for a degree/program which a student must take and obtain a pass before graduation.
- ii) **Elective:** A course which a student may choose in order to make up the required additional credits for the award of a degree.
- iii) **Prerequisite:** A course whose knowledge is essential for another specified course. A prerequisite requirement shall be fulfilled by obtaining a pass in the course. However, a student who fails the course but scores a minimum of D shall be deemed to have met the prerequisite.

GRADUATION REQUIREMENTS

Students are required to earn a minimum of 120 credits upon graduation. The table below breaks down these credits into six major subject areas. The table equally specifies the minimum credits required to be earned and suggests some courses which the students can take to earn these credits.

| <i>Subject Area</i> | <i>Specific Area</i> | <i>Minimum Credits to be earned</i> | <i>Recommended Courses</i> | <i>Remarks</i> |
|-----------------------|--------------------------|-------------------------------------|--|----------------|
| Foundation courses | | 30 | SIT101, SIT113, SIT121, SIT209, MIT106, SIT102, MIT107, MIT105, MIT104, MIT201 | |
| Core courses | Web Design & Programming | 48 | SIT118, SIT122, SIT203, SIT218, SIT219, SIT213, SIT435, SIT220 | |
| | Information Security | 48 | SIT201, SIT222, SIT217, SIT215, SIT357, SIT445, SIT224, SIT226 | |
| Elective Courses | Web Design & Programming | 18 | SIT201, SIT222, SIT217, SIT215 | |
| | Information Security | 18 | SIT213 | |
| Practicals / Projects | | 24 | SIT395, SIT130, SIT290 | |
| Total | | 120 | | |

Students are expected to earn 8 credits on internship carried out during the holidays after the first year. Students must present a report on the activities.

In addition, all students are expected to:

- i) Earn at least 2.0 cumulative point average in all applicable courses taken at CUIB.
- ii) Complete all Departmental requirements
- iii) Payment of all outstanding bills and return of all requirement and library books.
- iv) Application to the office of the Provost indicating readiness to graduate.

XVI. CUIB FACILITATING SERVICES

Library

The CUIB library has a rich collection of academic materials (textbooks, journals, manuscripts, etc.) which can be accessed by students, faculty and staff. The library can also be accessed by the wider public. It is opened Monday to Friday from 8:00 am – 4:00 pm. For more information, contact the Office of the Librarian (CUIB).

Office of Examination and Records

This office of Examination and Records is one of the most important offices in CUIB given its strategic role. The office is charged with the following task: i) organize the all CUIB examinations in collaboration with the Provost; ii) produce student academic transcripts; iii) collaborates with all the units of the University to obtain information required to generate all types of records. For more information, contact the office of Examination and Records.

Pastoral and Other Services

The Pastoral Arm of CUIB takes care of the following services:

- i. **Liturgy**: aspects of spiritual wellbeing of all members of CUIB community including daily masses, sacraments, retreats, and the students choir (Scolaris Cantores).
- ii. **EoC services**: concerned with social meetings, academic debates, motivational and carrier talks, interdependent study groups and entrepreneurial projects etc.
- iii. **Counseling**: helping students out with their emotional, psychological, spiritual problems, etc.
- iv. **Recreation and socio-cultural activities**: facilitate and plan recreational activities as well as supervise the creation and functioning of student clubs.
- v. **Health center**: Help to improve Faculty, Staff and Student's health as well as that of the Community. Also enhance proper hygiene and Sanitation in both Campuses.
- vi. **STUGA**: The CUIB Student Government Association (STUGA) exists to bridge the gap between students and Faculty and the University Administration. STUGA cooperates with the office of pastoral services in the organization of all student activities; acts as a link between students and for more information on STUGA activities, contact their office on Campus

For more information on Pastoral Services, contact the office of Pastoral Services or Rev Fr. Pascal Siben, Moderator, Campus Ministry.

CERI Office

CERI was created to deliver a virtual and real-time entrepreneurial ecosystem to support training and development of entrepreneurs, leaders and innovators within the science, technology, engineering and mathematics disciplines. For more information, contact: Director, CUIB-CERI.

CUIB Information Center

CUIB Information Centre is here to provide advice, direction and information on all University services and activities in close liaison with other staff, that is, we provide answers to any questions you may have about CUIB.

CUIB E-Communication

As an Extramural Centre created to meet Vision 2020 of the Institution, CUIB TV participate in the growth of innovation, providing audio-visual services to the University and external public and equally serve as a learning platform for our students.

Division of Intramural activities

Prepare Students, Staff & Faculty to become morally and spiritually responsible leaders who demonstrate critically, wisely and skillfully for the good of our community.

Bookshop

The bookshop operates as a service through which the University (Faculty, Staff and students) and the community (individuals, parishes and organizations) can procure religious and self-help books, religious articles, and stationery. Secular books can also be procured through bookshop on special orders at the bookshop. Bookshop also operates an outreach branch in Kumba. It is the intention of the university to involve students of Marketing to expand the services of bookshop to assist in the diffusion of materials. For more information, contact: CUIB-CERI Office.

St. Martha Faculty, Staff and Students Club

St Martha CUIB-CERI restaurant is one of the arms of CERI with the main aim of serving the university community as well as the wider public high quality food on a timely basis and at affordable prices. The restaurant sells varied snacks, drinks, and a multitude of dishes from Cameroonian, African and European dishes. It is a perfect restaurant to experience Economy of Communion (EoC), whether you like food, or story-telling or just sitting and thinking best, or a pleasant mixture of them all. The restaurant serves a dish (irrespective of choice) to students at 400 FRS and to others at 500 FRS. The restaurant opens daily from Monday to Friday from 09:00 – 16:00 with a short closure from 11:45 – 12:30 during EoC hour. For more information, contact: CUIB-CERI Office.

Office of Institutional Advancement & Development

The office of Outreach and Engagement has as its mission to promote and facilitate academic and cultural exchanges, research, vocational and industrial linkages between CUIB and the community, and other local and international institutions.

Student Financial Information

All financial transactions involving physical cash is carried out through any of the banks indicated below. Students pay fees in any of the branches of the banks where the University has accounts, and then present receipts of payment to the Office of Finance for necessary clearances. Financial payments may also be made at the Finance office of CUIB. Students should check with the finance office for details about any payments they wish to make. Below are the details of the University's bank accounts.

Table 4. Different CUIB bank accounts

| <i>BANK</i> | <i>ACCOUNT NAME</i> | <i>ACCOUNT NUMBER</i> |
|-------------|--|--------------------------------|
| BICEC | CATHOLIC UNIVERSITY INSTITUTE OF BUEA | 10001 06842 434956 42001/50 |
| ECOBANK | CATHOLIC UNIVERSITY INSTITUTE OF BUEA | 10029-00025- 01014756678-11 |
| NFC BANK | CATHOLIC UNIVERSITY INSTITUTE OF BUEA | 10025-00043- 16401044571-96 |

IT Services & Wifi On Campus

The CUIB IT offers wide range of services that gives a conducive atmosphere of learning for students on campus. These services include;

1. Fax
2. Internet Access
3. Telephone calls (National & International)

4. Printing (Black & white)
5. Scanning (Picture & document)
6. Documentation (Binding, Photocopy, Professional card, etc.)
7. Wireless (for Staff, Faculty and Non-staff)
8. Internet
9. Corporate Email.

**Contacts of Faculty and Staff of the School
of Information Technology**

| SN | NAME | STATUS | SPECIALTY | PHONE | EMAIL |
|----|--------------------------------|---|---|------------------------------|--|
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THE CUIB STATEMENT OF DIRECTION

I believe that God created all things and in him I live and move and have my being (Acts 17:28). Therefore, to succeed in this life, I must put God First, in the middle and in the end of all my activities and life as a member of the CUIB family.

I believe in the EoC Philosophy which fosters team work, and that the way forward for humanity is to develop a culture of sharing versus that of having, a culture of inclusiveness and diversity than that of segregation. Therefore, I believe in the Economy of Communion Philosophy.

I believe that God endowed man and woman with intelligence and freedom to share in his work of creation. Therefore, I believe that in order to be co-creator in a responsible way, I must work hard to be a true entrepreneur, a job creator, and a giver through community engagement and volunteerism.

I believe in an educational system that is not only about entitlement, matricule and certificates, but one that is practical, transformative and solution-oriented to solve real life problems.

I believe in honesty and truthfulness, without which I cannot win the respect and confidence of my fellow men and women.

I believe in a sound mind, in a sound body and in physical education and sports that develop these qualities.

I believe that we build a culture of innovation and creativity based on three principles: Celebrate it when it is successful; reward it when it is successful; and learn from failure by not making the same mistakes twice because failure is a growth in perfection.

I believe in obedience to law because it protects the rights of all. Therefore, I must foster the two main virtues of an entrepreneur: Love and Justice.

I believe in the human touch and servant leadership philosophy, which cultivates empathy with my fellow men and women and mutual helpfulness that brings happiness for all.

I believe in my Country, because it is my own home, and that I can best serve that country by “acting justly, loving tenderly, and walking humbly with my God.” (Micah 6:8).

And because CUIB men and women believe in these values, I believe in CUIB and love it.