UNIVERSITY OF UYO

(Students Information Handbook)

Ph.D. Computational Intelligence Programme
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1. The University Anthem

*Arise and Shine*

- Let’s all arise as one
  And light up wisdom’s path
  The citadel our great forebears
  Raised from nursery to its apogee
  Now stand like a giant
  In the African sun
  Arise, Arise, Great UNIUYO
  We shall arise and shine
  And take our place in the firmament
  Of cultured men and women
  Blest with wisdom, depth and vision
  And leave behind traditions
  For generations to come
  Arise, Arise
  Arise and shine forth, Great UNIUYO
2. **The National Anthem**

*Arise, O Compatriots*

- Arise, O compatriots, Nigeria’s call obey
  To serve our fatherland
  With love and strength and faith
  The labour of our heroes past
  Shall never be in vain
  To serve with heart and might
One nation bound in freedom, peace, and unity.

- Oh God of creation, direct our noble cause
  Guide our leaders’ right
  Help our youth and truth to know
  In love and honesty to grow
  And living just and true
  Great lofty heights attain
To build a nation where peace, and justice shall reign.

3. **The National Pledge**

*I Pledge to Nigeria*

- I pledge to Nigeria, my country
  To be faithful, loyal, and honest
  To serve Nigeria with all my strength
  To defend her unity
  And uphold her honour and glory
  So help me God.
4. **The University Visitor**

The Visitor to all Nigerian Universities is the current sitting President of the Federal Republic of Nigeria.

Please visit the university’s website at [https://uniuyo.edu.ng](https://uniuyo.edu.ng), for more details on the current visitor to Nigerian universities.

5. **The University Governing Council**

The University of Uyo Governing Council is made up of five external members and six internal members.

Please visit the university’s website at [https://uniuyo.edu.ng](https://uniuyo.edu.ng), for more details on the current Chairman and Pro-chancellor of the University’s Governing Council.

6. **The University Management**

The management team of the University of Uyo consists of:

- The Vice Chancellor
- The Deputy Vice Chancellor (Administration)
- The Deputy Vice Chancellor (Academic)
- The University Registrar
- The University Bursar
- The University Librarian

Please visit the university’s website at [https://uniuyo.edu.ng](https://uniuyo.edu.ng), for more details on the University’s management team.

7. **The University Mission, Vision and values**

**Mission:**

To diligently pursue scholarship and deploy its output for human capacity development and economic growth in the society, with active participation in Information and Communication Technology, sensitivity to Nigeria’s rich cultural heritage and responsiveness to global environmental changes.

**Vision:**

To be a centre of academic excellence by utilizing the available human and technological resources for teaching, research, community service and sustainable development.
Core Values:

Faith in God
Academic Excellence in Teaching and Research
Institutional Autonomy
Academic Freedom
Peer and Professional Review
Qualitative Service Delivery
Strong Work Ethics
Equal Opportunity
Creativity and Innovation
Integrity
Transparency and Accountability
Peace and Orderliness

8. The University Postgraduate School

The Postgraduate School of the University of Uyo has been an integral part of the university since its inception in 1991, with pockets of programmes in few departments. Today, in addition to a number of Diploma programmes administered by the School of Continuing Education, the Postgraduate School runs 94 Ph.D. and 108 Masters Programmes spread across the 12 Faculties of the University. The programmes are marked by specializations.

The philosophy of the Postgraduate School is to pursue scholarship through systematic academic and research programmes geared towards shaping the perception, thinking, moral, physical and emotional demeanour and sensitivities of the student. It accomplishes these through emphasis in research orientation which encourages originality of thought, venturesomeness, ability to break barriers of mental inhibitions and the extension of the frontiers and horizon of knowledge. To this end, postgraduate students with their supervisors and advisers should see themselves as catalysts in the mission to reverse the cycle of backwardness that afflicts the conditions of life in their communities and beyond.

The Postgraduate School is charged with the responsibility of considering recommendations from the Faculty boards on matters relating to the pursuit of higher degrees at the University of Uyo. The School has in place a Board (The Board of Postgraduate Studies) that sees to the development of Postgraduate work in the university. All Postgraduate matters from the various departments are channelled through the Board of Postgraduate Studies, which makes appropriate recommendations to Senate. Postgraduate teachers are based in the University departments and their inputs into the decision making processes of the Postgraduate School are routed through
their respective Deans, Faculties Representatives, and Heads of Departments – who are the Chief Examiners of the departmental postgraduate examinations.

The structure of the Board of Postgraduate Studies consists of the following:

- Dean of Postgraduate School
- Vice Dean of Postgraduate School
- Deans of all Faculties
- University Librarian
- All Faculty Representatives
- Director of Academic Programmes
- Director, School of Continuing Education
- Director, Institute of Education
- Secretary, Postgraduate School

Chairman  
Member  
Members  
Member  
Members  
Member  
Member  
Secretary

The functions of the Postgraduate School include:

- Coordination of all Postgraduate Programmes of studies in the University, such as planning, admission, registration and examinations;
- Maintenance of quality assurance and academic standards;
- Monitoring and evaluation of the progress of Postgraduate studies in the University, and submission of an annual report to Senate.

Every Faculty also has a Postgraduate committee, which oversees the following functions:

- Consideration of recommendations from the Departmental Postgraduate committees and make recommendations to the Postgraduate Board of Studies. The Dean of the Faculty shall then report to the Postgraduate School Board;
- Regulation of Postgraduate studies in the Faculty in accordance with the general guidelines approved by the Board of Postgraduate School.

9. **University’s General Regulations Governing Doctoral Programmes**

The degree of Doctor of Philosophy (Ph.D.) shall be awarded to a candidate who has satisfied the course requirements and has submitted a thesis on the basis of original and independent research
that makes a contribution to the advancement of knowledge, after being approved by duly constituted examiners according to the existing norms of the university.

Hence, the candidates should demonstrate:

- The ability to create and interpret new knowledge through original research and advanced scholarship;
- A systematic understanding of an existing body of knowledge that is at the forefront of an academic field;
- The ability to explore critically, evaluate and test their ideas, and those of others, and to relate them to a wider body of knowledge;
- A good understanding of the research techniques, methods or approaches adopted and applied in a field of enquiry;
- The ability to conceive and implement a project which shows an understanding of how to conduct research at the forefront of a field;
- An ability to produce research material worthy of publication.

The University currently runs Full Time Ph.D. Programmes. Candidates under these Programmes shall do research work in this University, and shall be available at the assigned department of the University/Institution during the working hours of the curricular, co-curricular and related activities, and shall meet at least 70% class attendance before they can be examined. Where a bench-work is required in the case of interdisciplinary or foreign co-supervised research, the student shall proceed on a time bound period to attend the foreign co-supervision and return to complete his programme.

Candidates in employment, who want to pursue Full Time studies, and have satisfied the eligibility requirements are advised to obtain a leave for the research period before joining the research programme, as research programmes require absolute concentration and success is only achievable within the ambience of the academic environment.

For all research degrees, the University requires that work presented for examination should be:

**Authentic:** The submission should be the candidate’s own work and not be plagiarised from the work of others, published or unpublished. All sources used should be appropriately acknowledged using a recognised form of referencing.

**Scholarly:** The Thesis should conform to the normal canons of scholarship, studying a topic in-depth, and displaying critical discrimination and a sense of proportion in evaluating evidence and the opinion of others. Sources should be cited accurately, consistently, and correctly in the text and in the bibliography.
Professional: The Thesis should demonstrate the author has acquired the skills of a professional researcher capable of conducting research in accordance with the ethical practices of their field, and that they possess a good understanding of their role in the wider research process. The author should also demonstrate the ability to exercise personal responsibility and initiative in complex and unpredictable professional research environments.

Well-structured, written, and presented: The Thesis should demonstrate skill in writing and presenting research similar to scholarly work in their field. It should be clearly structured and orderly in arrangement, and well-written and presented. Similarly, any composition, exhibition, artefact(s) or other products of practice arising from the research should be arranged and presented in an orderly and coherent way.

10. The Departmental Postgraduate Committee

Aside the University of Uyo Board of Postgraduate Studies, every department in the university running a Postgraduate course has a well constituted Postgraduate Programme Committee made of up all the Senior Lecturers in that Department. The committee makes recommendations to the Senate through the Faculty Postgraduate Committee and the Postgraduate School Board on the following:

- Postgraduate curricula;
- Postgraduate admissions of suitable candidates;
- Degree in view and field of study;
- Appointment of supervisors, registration of research titles, and extension re cancellation of registration of Postgraduate students;
- Appointment of examiners;
- Postgraduate examination, results consideration and award of higher degrees;
- Initiation of action on any Postgraduate matter referred to it by the Faculty Postgraduate Committee or the Postgraduate School Board.

11. Welcome Message

Thank you for choosing to enrol in the Ph.D. Computational Intelligence Programme – an interdisciplinary Programme where quality research and mentorship remain the hallmark. This Programme is jointly managed by two departments: Computer Science, and Linguistics and Nigerian Languages.

Artificial Intelligence has now become a sure avenue for decent and sustainable solutions to problems in all disciplines. Hence, the Programme is most likely to affect in the positive, other
disciplines yet to be covered. We are certain that within the shortest possible time and beyond, the ‘landmark’ of the University system as regards education, research innovations, and creativity, shall be taken by FORCE, through an octopus approach, gradually spreading its tentacles to influence other Postgraduate Programmes.

Research degrees are highly regarded by employers and academics. The essential purpose of a research programme is a period of training in research and the generation of an original piece of work that can positively serve humanity and impact the society. During your studies, you will develop a range of personal and professional skills that will prove invaluable for the transition onto your next career.

As prospective Postgraduate students, you represent the future of research and development. We therefore implore you to pay great attention to excellence and strive for this virtue at all times. To achieve this, you must make efforts to improve your skills and knowledge through effective communication, reading, studying, discussions, interactions, attending seminars and conferences wherever possible, and above all, conduct yourselves with dignity and integrity.

We congratulate you and wish you the best of luck as you traverse an ordered venture of life’s calling, for the service of humanity.

Signed: Head, Department of Computer Science.

12. Programme Mission, Vision and Expected Impact

**Mission:**

*As universities evolve in an increasingly complex environment—characterized by new technological, social and economic challenges, so is the need to accommodate this reality in the assessment of universities performance, which developments are constantly paralleled by increasing differentiation of universities’ profile—the wide variety of universities missions, strategies and “ecosystems”, certainly demanding the evolution of novel mechanisms to redefine and improve the performance of universities in a more comprehensive way, going beyond the traditional quantitative indicators to include more concrete outcomes of university-based teaching, research, and partnerships. … Adapted from: Borrell-Damian, et al., 2014.*

The Programme’s mission is therefore predicated on the immediate and unmet need to transform the university system, towards a remodelled academic curriculum that cooperatively synthesizes other disciplines, eliminates idle time, introduces education and applied research innovations—through efficient mentorship and industry experience, plus
internationalization flavour—towards quality service delivery that shall set the pace for a new academic era.

**Vision:**

*To create new knowledge, inspire innovative education for effective leadership and best practices in research excellence and inquiry, through Computational Intelligence revolution.*

In order to achieve this vision, the Programme shall invest in interdisciplinary teaching and research collaborations; exhibit great ambitions for its students and alumni with opportunities to match their ambitions; and aggressive manpower development. This action shall in turn impact greatly on students and staff members, and shall: (i) offer great career opportunities and employability; (ii) promote internationalization—with theoretically sound and robust solutions to real-world problems prediction and decision making; and, (iii) contribute to bridging the gap between theory and practice.

**Objectives:**

The specific objectives of the Programme include, to:

(i) transform the current mono-disciplinary methods into interdisciplinary solutions;

(ii) encourage a cooperative atmosphere with sound mentorship experience within a multidisciplinary context;

(iii) develop robust and sustainable solutions to complex real-life problems;

(iv) create a creativity-driven environment for knowledge discovery and possible transformation of research innovations into realities;

(v) integrate applied research Projects and courses that embed employability, connect the industries and other sectors;

(vi) narrow the gender divide in STEM and medical disciplines;

(vii) prioritize the strategic transformation of the Programme beyond boundaries;

(viii) explore available human and natural resources for improved education, manpower development and brain drain reversal.

**Expected Impact:**

The programme shall:

(i) Expose students and staff members to wider education and research opportunities;

(ii) Enable exchange and transfer of technologies;

(iii) Diversify the students’ body (socially and geographically);

(iv) Stimulate new and interesting Programmes;

(v) Enable timely graduation and continuous enrolments;
(vi) Cause the experience of improved education and research, and transform the university system into an international hub in CI methodologies.

13. Programme overview and Structure

The Ph.D. Computational Intelligence Programme is the first interdisciplinary Programme in the University of Uyo, established through a tripartite DAAD: German Exchange Academic Exchange Programme (Uyo-Bielefeld-Abidjan) cooperation between Linguists and Computer Scientists in the University of Uyo, Nigeria; University of Bielefeld, Germany; and Abidjan University, Ivory Coast. The Programme was approved by the University of Uyo Senate in the 2009/2010 session, and was hosted in the Linguistics and Nigerian Languages department of the university under the name ‘Computational Language Technology’. In 2016/2017 session, the Programme was moved to the Department of Computer Science, because of its computational nature and strict scientific content, and rebranded ‘Computational Intelligence’, with a more diversified content that targets innovation and the building of a pipeline of talents, to tackle a wide range of societal challenges.

The Programme is mainly research-based and operates a modular course delivery system, leveraging interdisciplinary elements through constant interaction through progressive evaluation mechanism, to monitor students’ progress. The Programme modules also connect the industries—towards enhanced diversity in locus of control, for significant transformative impact on the society. Available options or areas of CI specialization students can select from include: Speech Technology; Forensic Applications; Intelligent Systems; Intelligent Nanotechnology; Remote Sensing Applications; Smart Wireless Technology; Control Systems; Cyber Security; Business Intelligence; Big Data Analytics; Health Informatics; Bioinformatics; and Digital Humanities & AI.

The Ph.D. Program is structured in three phases.

First Phase: In the first year (first 2 semesters), the students offer 36 hours of courses (18 hours per semester). These courses provide them with the following skills:

- Main organizing principle guiding research progress in an area of interest and the ability to identify and define a problem;
- Intelligent methodologies and applications;
- Theoretical/conceptual background and practice in a specialized area (identified by the students);
- Critical writing – for independent review and writing of scholarly articles;
- Fundamental concepts of probability theory and statistical reasoning, covering important algorithms and modelling used by supervised and unsupervised systems;
• Mini AI project – an opportunity to study identified problems in great depth; create, analyze and mine empirical datasets/databases, and implement same using state-of-the-art nature inspired (fuzzy logic, evolutionary, neural networks) algorithms.

This phase is intended to build the students’ research capacity (from problem formulation to conceptual design/modelling), and develops their scholarly/academic writing/review skills, towards full research independence.

Second Phase: The third semester is dedicated to a 3-6 months industry-based/internship experience at any of our industrial/sectoral or international partners’ university/organization (we expect this experience to be relevant to the student’s area of interest). To achieve this, the Program continually scans and identifies related national, regional and international partners to host this phase. The aim of this phase is to expose students to prevailing practices in the industry and/or other sectors of the economy, where they can gather knowledge on the techniques and obtain creative and managerial skills and competence—the industry experience. This experience will ultimately position the students for practical industry experience and offer good interaction interface between the students and industry experts. Further, the experience period will lead to the identification of supervisors/mentors and prepare the students for the next phase of the PhD Program. This phase is allotted 6 credit hours.

Third Phase: The last three semesters focus on intensive research activities—consisting of 2 research-driven Projects/courses (6 credit hours per course). During this phase, a student will be supervised or mentored by one or more senior faculty members; and shall develop theory, execute empirical studies in close relationship with their supervisors or mentors. One of the courses is a large scale Project that associates the students with keynote research areas that focus on critical developmental needs of the society (e.g. Health, Agriculture, Power, Security, Telecommunication, etc.). The aim is to deliver the needed interdisciplinary cooperation and sound mentorship experience. The second course is the student’s Thesis. The outcomes of this phase include: skills required to produce quality research publications (including joint authorship) publishable in top ranking academic journals; production of intelligent problem analysis and Big Data mining activities—resulting in domain-specific/local-content solutions (consistent datasets/databases, reliable plug-in and innovative interfaces and ‘Apps’, intelligent modelling and simulation workbenches, etc.); and seamless completion of their Thesis.

The detailed Programme curriculum is found in Section 32.

14. Admission Process and Entry Requirement

Interested applicants who wish to undertake Postgraduate Programmes in the University of Uyo should follow the application process outlined at the University of Uyo Portal services: at
The selection and admission processes are achieved through a screening test (written test and oral proposal defense). However, the basic qualification for admission is that every applicant must satisfy the mandatory O’level requirement in English and Mathematics.

For national students, the selection process is manually done and the language of communication is in English. In the case of international students, the Programme adopts an online selection process using any of the video conferencing software: Skype, Zoom, etc, agreed with the prospective applicant. Where necessary, a language support in French is available in our Foreign Language department.

Candidates for the PhD CI Program must be holders of a Master’s degree in the Computational Sciences and Engineering, from the University of Uyo, or any other university recognized by the Senate of the University of Uyo. Furthermore, a Master’s degree in the following disciplines (Arts/Humanities, Physical and Applied Sciences, Pharmaceutical Technology, Clinical Sciences) with strong interest to advance to the PhD level of the Program, will be considered.

15. School Fees and funding

_Tuition Fees:_ Fees payable by Postgraduate students are set out in the University Fees Schedule and are subject to an annual increase. The school fee schedule can be accessed online at the Student Information Management System: [https://uniuyo.edu.ng/eportals](https://uniuyo.edu.ng/eportals).

Students whose tuition fees are to be paid by a sponsor or funding body are asked to provide official letters of sponsorship/funding as evidence that their fees will be paid, either during or prior to Registration. A new letter maybe required annually at registration depending on your sponsor. Letters from family members and friends cannot be accepted as sponsorship/funding letters for fees purposes.

16. University Services

16.1 Books and Journals

The University of Uyo invests in the purchase of current books and print journals. Hence, every year, the University Library requests for a list of books and journals publications (in print form) in specialized disciplines from all departments, for purchase. The University also receive book donations from the Government (Through TETFund: Tertiary Education Trust Fund), Alumni, staff members and research collaborations. Also, the University Library maintains e-resources and other digital resources in all disciplines. More information on the University Library and available resources are given in the next section.
16.2. The University Library

The University of Uyo operates a multi-library system with Library collections at 18 locations across 5 campuses, namely:

- The Main Campus at Use Offot, Nwaniba. The main campus library is situated centrally after the Science Faculty, and services the Faculties of Engineering and Science.
- The Town Campus at Ikpa Road. The town campus library also called ‘Nyong Essien Library’ is situated after the University’s Post office, opposite the Centre for Gender Studies, and services the Faculties of Arts, Basic Medical Sciences, Education, Social Sciences and Pharmacy.
- The Town Campus Annex between Ikot Ekpene and Ikpa Road. The town campus annex library also called ‘Business Library’ is situated opposite the Business Administration Faculty, a stone through from the town campus annex gate – Ikpa road axis, and services the Faculties of Agriculture, Business Administration and Law.
- The University of Uyo Teaching Hospital at Abak Road.
- The School of Basic Studies Campus at Ediene Abak.

There are also strong Faculty Libraries in all the twelve faculties and the Postgraduate School.

The major goal of the University Library is to develop a User Friendly Library and Information Service (UF-LIS).

The University Libraries service a student population of about 20,000 and a staff population of about 5,000. Operational hours of the University Library are as follows:

Semester: Mondays to Fridays – 9.00 am to 9.00 pm
Saturdays: 9.00 am to 6.00 pm
Vacations: Mondays to Saturdays – 9.00 am to 4.00 pm

The Library remains closed on Sundays and official public holidays.

*e-Resources*: The university library abstracts, indexes, scans, stores, and is in the process of uploading onto the web theses and dissertations submitted by students of the University of Uyo. Research and publications of Faculty members are also scanned and uploaded for global visibility. Enquiries and suggestions to the institutional repository could be sent to uniuyoir@uniuyo.edu.ng. The university library has also subscribed to the following e-databases: Research4Life (Hinari, AGORA, ARDI, GOALI, OARE); Proquest; and Teal. Currently, this subscription holds databases with over 6,000,000 e-books and 2,000,000 e-journals in all the major academic disciplines.

For more information on the Library operations and units, please visit [https://uniuyo.edu.ng](https://uniuyo.edu.ng).
16.3. Internet Access

Internet access within the University of Uyo is generally stable. A Fibre Optic Cabling (Campus-Campus) is the main backbone network with equal bandwidth distribution of 155 mbps (STM-1) download and upload. This network services four campuses of the university (town campus, town campus annex, main campus and the university teaching hospital). Each campus has a Network Operating Centre (NOC) and the internet distribution is via the Fibre Optic network from the ICT Data Centre/NOC (at main campus) to other NOCs. The backup network is the wireless connectivity via Wireless Bridge Radios across the campuses, which provides internet presence ‘Uniuyo Hotspot’ across the four campuses of the university; and beams internet to open browsing areas in these campuses for staff members and students. The university maintains contract with Fibre Optic consultants to carry out maintenance and repairs, when the need arises.

Interested students who want to use the ‘Uniuyo Hotspot’ must apply for access. The process of application is online and simple: Visit, https://uniuyo.edu.ng; click on the ‘Wi-Fi Hotspot request form’ link on the Homepage, complete the form and route the form and click the ‘Submit Request’ button. Your registration details will be setup in a fortnight, and your internet access code can be picked up at the ICT Directorate. Furthermore, we request that you digest the ICT policy available at https://uniuyo.edu.ng to avail yourself on the code of practice on the Internet.

16.4. Student e-mail

Official university e-mail (e.g., name@uniuyo.edu.ng) is available for Postgraduate students. Hence, students who require the official e-mail should do this through an application. The application is routed through their Head of Department, who will approve the applications and forward same to the ICT Director for approval. Your official e-mail will be setup in a fortnight and you can activate the e-mail for use. The University email is provided via Google. Please be sure to check your University email account regularly for information about your course, lectures and announcements.

16.5. Accommodation

Provided certain conditions are met, all Postgraduate students at the University of Uyo are guaranteed a place in University-owned or partnership accommodations during their first year. International students who wish to remain at university-owned or partnership accommodations are guaranteed accommodation until their graduation year. However, should our students prefer privately sourced accommodation, to explore the rich cultural mix of Akwa Ibom State; we shall
assist the student to source for decent and affordable accommodation that meets the student’s financial target.

17. **Student Matters**

17.1. **The Graduate Students Association (GRASA)**

The Graduate Students Association (GRASA) is a student-led organization that serves as the official voice for graduate and professional students at the University of Uyo. GRASA was founded in 1992, and represents and acts on behalf of graduate students by participating in the students’ government, appointing representatives to university administrative committees and developing programs geared towards providing opportunities for academic development. All graduate students (both full time and part time) enrolled at University of Uyo are automatically members of the association. The body comprises of all Postgraduate students (Postgraduate Diploma, Masters and Ph.D. Students) of the University of Uyo. Its sole purpose is the promotion of qualitative research, general welfare, as well as maintenance of a healthy and honourable academic community for learning. The specific objectives of GRASA include:

- contributing through research works and publications to advance academic development;
- promoting of educational development in the fields of humanities, sciences and technology in the University of Uyo and beyond, through the organization of seminars, lectures, symposia and workshops;
- promoting and cultivating, among members, the ideas of academic excellence;
- encouraging members in the quest for knowledge for service to humanity;
- fostering the development of Nigeria by providing intellectual contributions to the government and the people;
- promoting a healthy relationship, by acting as a vital link between graduate students and the government of University of Uyo;
- providing welfare services to members.

17.2. **Induction into the University and the Programme**

The University requires the Programme Department to provide students with an appropriate induction programme within three months of registration, to enable them to acquire an understanding of the academic and social environment within which they will be working. The induction programme should include an introduction to the University including its history and development; relevant regulations, policies and procedures relating to research degrees; an induction into matters relating to students’ relationship with the institution including: the
University’s expectations of research students; the challenges typically faced by research students; institutional facilities available to students including the learning support infrastructure; institutional provision for student welfare and other support arrangements; complaints and appeals procedures. This Student Information Handbook therefore serves as a good source of information and addresses to a great extent issues concerning your progress and code of practice in the Programme and we expect you to avail yourself of its content.

17.3. Information for Students with Disabilities

If you have a disability, medical condition, or specific learning difficulty, we seek to ensure that your chances of academic success are not reduced because of your disability. We will connect you to the appropriate department or services, e.g., the Department of Special Education, which will offer assistance on the following, to enable you cope with your studies:

- disabled students’ support needs;
- application for Disabled Students’ Allowances or Hope Scheme;
- advise on special equipment and technology.

17.4. Financial Support, Funding Opportunities and Schemes

Scholarship awards consisting of financial assistance in the form of tuition, stipend, housing allowance and for benchwork support are available on a competitive basis to students on Postgraduate Programmes. Students on study leave from academic Universities (Tertiary Institutions) have access to Tertiary Education Trust Fund (TETFund) scholarships from their various institutions. The University of Uyo also maintains existing and robust partnerships with scholarship agencies such as Petroleum Technology Development Fund Local Scholarship Scheme (PTDF LSS). Students could get more information from the PTDF LSS coordinator in the Department of Chemical and Petroleum Engineering, University of Uyo. Other sources of financial support can be obtained from the Niger Delta Development Commission (NDDC), for students from the Niger Delta region; NNPC/Exxon Mobil, Nigerian Agip Oil Company (NAOC); and SHELL Petroleum Development Company (SPDC) internship programme for Ph.D. students. These scholarships are advertised yearly on the companies website.

17.5. Information for International Students

The University of Uyo has a robust plan for internalization. In this regard, the Office of International Programmes was established to provide students from other parts of the world with information and assistance on housing, language, cultural issues, and facilitate the sharing of
information. The University explores the following strategies to meet this plan: (a) Use of social and online marketing of the University brand: we have an easy to navigate website that can be viewed on multiple devices and platforms. Our website: [https://uniuyo.edu.ng](https://uniuyo.edu.ng), provides prospective students with all they need to know about the university; (b) Upgrading of hostel accommodation and other facilities; (c) A commitment to ensuring that the University calendar is strictly followed to ensure no student overstays his/her studentship. (d) Timely online and offline communications between the university and prospective students; (e) Mobilizing alumni networks and current students to be the University’s brand ambassadors, maximizing the potential of merchandising; and, (f) taking advantage of public events in order to draw greater public attention (e.g., inaugural lectures, conferences, or fora for prospective students).

The University has also signed Memorandum of Understandings (MOUs) with universities and research Centres within and outside the country (at National, Regional and International levels). Most of these MOUs directly concern students and staff exchanges, and research collaborations within the STEM, Medical and Humanity disciplines. International students can avail themselves of this information and exploit the benefits to the fullest.

17.5.1. Visa Support and Application

All visitors not exempted from entry permits are advised to apply and obtain appropriate visa from the Nigerian Mission – Embassy, High Commission or Consulate before entry into Nigeria. All applicants must strictly comply with the applicable requirements. Otherwise, the passport will be returned without a visa. In this case, an applicant may have to resubmit application.

*Requirements for Entry into Nigeria:*

- Original Passport should be valid for at least 6 months. Visa will be affixed on valid passports only;
- One recent coloured passport size photograph 2 inch by 2 inch, with at least 3 months validity (White Background). Names should be written at the back of the passport photograph with stamped date.

The High Commission reserves the exclusive right to grant or reject visas. Please print out the necessary documents including: completed online Entry Visa Application Form and Sign, Confirmed Payment, Visa Acknowledgement Slip.

Failure to comply with the above requirements will result in your passport being returned without a visa.

A Yellow Fever certificate ‘vaccination against yellow visa’ may be applicable.
Visa Application Procedure:

- Visit the immigration portal at: [https://portal.immigration.gov.ng](https://portal.immigration.gov.ng). This opens up to the website of Nigerian Immigration Service
- Select Visa
- Select processing country (in this case, your country)
- Complete the online application and pay for the visa fee online (with your credit card).
- To print out the visa payment and visa acknowledgement slips, go to: [https://portal.immigration.gov.ng](https://portal.immigration.gov.ng)
  - Locate Application Status
  - Click on Application Payment Status, and select Visa from the drop down
  - Enter Application ID Number and Reference Number
  - Click on Search Record
  - Scroll down to print Visa Payment Slip and Visa Acknowledgement Slip at the bottom page (if your payment has been approved)

Please visit: [https://immigration.gov.ng/visas](https://immigration.gov.ng/visas), for more detailed information, and the Nigerian High Commission or Embassy nearest to you for updated procedures on application for appropriate visas, and application procedures.

17.6. Attendance and Absenteeism

Regular and punctual class attendance is expected of all students and classes are conducted in a manner that will encourage academic excellence. The Programme reserves the right to deal at any time, with individual cases of non-attendance and the final authority for attendance and any effect that it might have upon grades rests with the individual faculty member. This is due to the tremendous variety of class size and purpose, and the specific requirements in attendance, which in most cases is 75% attendance. Any student who fails to meet the minimum attendance requirement of a course will be assigned a grade of “F” (Fail).

Essentially, students are expected to attend all meetings of the classes in which they are enrolled. A student with excessive absences may be dropped from a course by the instructor with a grade of “F” at the end of the semester. Absences due to illness, holiday or to authorized University activity such as field trips, athletic trips, etc., are to be reported by the student to his/her instructor(s) or supervisor(s), and to the Programme Coordinator or Head of Department. If a student is unable to contact his/her instructor(s), the student may leave a message at the instructor’s department or through or email. The reporting of absences does not relieve the student of responsibility for missed assignments, exams as the student is expected to take the
initiative in arranging with his/her instructor(s) or supervisor(s) to make up missed work, and the faculty member is to cooperate with the student in reasonable arrangements in this regard.

Verification (such as doctor’s note, hospital billing, military orders, death notices, etc.) of a student’s report of absence will be provided on request and in accordance with the following general procedures.

*Short-Term Absence:* When notified in advance of an absence of 1-4 days, the Programme Coordinator or Head of Department will prepare an absence notice which the student may pick up and personally deliver to his/her instructor(s).

*Extended Absence:* The Programme Coordinator or Head of Department will send absence notices to instructor(s) on absences of 5 days or longer when notification of the absence is received prior to or at the onset of the absence. If notified after the absence, the absence notice will be prepared, but the student must hand carry the notice to his/her instructor(s). Verification of extended absences is recommended (such as a doctor’s note, hospital billing, etc.)

*Exceptions:* On request, the Departmental Postgraduate Committee will review specific absence situations to determine if exceptions to the established absence procedures are warranted. It should be noted that written medical excuses for class absence will not be issued routinely by the University Health Centre except in the case of physical education classes, where participation would be detrimental to the student’s condition. Where confirmation of a student’s attendance at the University Health Centre is required by a member of the teaching staff, this will be furnished on direct enquiry, without revealing the medical details necessitating such attendance.

### 17.7. Examination Policy

In the University of Uyo only candidacy examination is administered, as comprehensive examination was phased out by the Senate of the University. Departments that require candidacy examination may administer it in the student’s field of specialization, and the examination may be written, oral, or both, as determined by the sponsoring department. It may also serve as the final examination for the Ph.D. degree if a department so prescribes. The examination may not be taken until the student has completed at least two semesters of study. Final examinations are not the only legitimate type of terminating activity that conforms to course objectives. The terminating activity may also take place only at the time and location assigned by the Dean of Postgraduate School. Once the final examination has been set, changes and absences must be approved by the Dean of Postgraduate School.

No graduate credit is given for “F” grades, and graduate grading policy does not permit “E” and “D” grades. Students may repeat “F” grades if s/he is unable to make it at the first attempt.
However, only the final attempts and grade(s) earned will appear on the graduate transcript. A Thesis is required for completion of the Ph.D. Programme, and the Thesis score also contributes to the overall grade point of the student. The Thesis must demonstrate the candidate’s mastery of his/her research and reflect the results of an original investigation in the principal field of study with a definite original contribution to knowledge in that field. The following grades are used in reporting the standing of students at the end of each semester.

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Grade</th>
<th>Score range</th>
<th>Description</th>
<th>Quality Point/Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A</td>
<td>at least 70</td>
<td>Excellent</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>B</td>
<td>60-69</td>
<td>Good</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>C</td>
<td>50-59</td>
<td>Fair</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>F</td>
<td>at most 49</td>
<td>Fail</td>
<td>0</td>
</tr>
</tbody>
</table>

The University requires all new research students in the CI Programme to submit a plan of their proposed research after two semesters of enrolment. The research plan is an important document as it is the basis against which the students’ future progress will be measured. The plan should be completed in conjunction with the supervisor(s) and should include a methodological approach, potential difficulties and alternative strategies as well as a timeline. This structure of the report should include title page, abstract, background/literature review, research strategies/methods, progress to date, plan to completion (including Gantt chart), references.

All students must undergo progressive assessment of their research potential to determine whether to continue or drop from the Programme. Where appropriate, the assessment will also consider whether the students need English language support. Specifically, the assessment requirements include:

- Submission of a written report
- Giving a research seminar or technical report

Four possible outcomes of the seminar assessment include:

- Pass (continuation of Ph.D. registration)
- Resubmission/re-assessment within 2 months
- Transfer registration to M.Phil. status, if available
- Failure (withdrawal from the Programme)

In the event of failure, the student may be required to withdraw from CI program or transfer to M.Phil. status, in which case they will be given guidance on how to write up for an M.Phil.
within a 24-month deadline. Failure decisions will require consultation with the supervisor(s), Programme Coordinator, Head of Department, and the Dean of Postgraduate School. Results will normally be communicated to the student within a week of the seminar. Once students have been informed of their result, they should arrange to meet with their assessors to collect their reports and obtain more detailed feedback for improvement.

For further details, please visit the code of conduct (policy) document for students at: https://uniuyo.edu.ng.

17.8. Academic Dishonesty

Academic dishonesty refers to misconducts that endanger the fundamental values of honesty and integrity in scholarly endeavours. Every student and faculty members are expected to maintain the university’s academic integrity policies and identify academic misconducts. There is no intention to discourage interactions among students, faculty, and others. Exchanges among students are invaluable, especially when the diversity of backgrounds and experience is so rich and varied. Nevertheless, these guidelines emphasize the need for attributing credit and for doing independent work when required by your instructor, mentor or supervisor.

Academic integrity ensures that academic work and grades are a true representation of a student’s own understanding and effort. Thus, academic dishonesty includes actions that improperly impact the assessment of a student’s academic achievement and may result in disciplinary actions, including suspension, expulsion from the university or rescission of the degree. Dishonest actions include, but not limited to, plagiarism—using someone else’s words, data, or ideas as if it were one’s own work and applies to published and unpublished works as well as written or verbal assignments); fabrication—making false claims to deceive or mislead people through fictitious data, citation or research; bribe, favour, threats—bribing, attempting to bribe, promising favours to or making threats against, any person, with the intention of affecting a grade or evaluation of academic performance; examination by proxy—taking or attempting to take an examination for someone else; cheating—using unauthorized materials, information, assistance, devices, or study aids in an academic exercise; technological misconduct—sharing, using or attempting to use computing accounts (PINs, usernames, passwords, etc.) or other information for which the student is not authorized; violating software license agreements; classroom misconducts that disrupt learning process; attempting to help another engage in academic integrity violation; and unethical or hazardous behaviour in professional experience activities e.g. internship, practical, service learning experience, out of classroom experience, and more.
17.9. Academic performance and Good Standing

Students pursuing a graduate degree at the Doctoral level in the University of Uyo must maintain a minimum of 3.0 (“C”), cumulative grade point average (CGPA) in order to be in good standing, academically. A student must be in good standing to be admitted to degree candidacy and to graduate. Graduate students earning final grades of "F" and a 0.00 CGPA at the end of their first semester of enrollment will advised to withdraw from the University.

17.10. Complaint and Dispute Resolution

The University of Uyo has a Complaint and Dispute Resolution Unit called SERVICOM where a respondent to a complaint under this policy can be a person or entity about whom a complaint is made, which may include a student, a staff member, a unit of the University, the University and/or a person or entity associated with the University. The policy includes the principles to be applied and the procedures to be followed, in the management of student complaints and appeals so as to resolve complaints and appeals fairly, promptly and efficiently, and to improve University practice. The aim is to resolve disputes in a positive way and contribute to the continuous improvement of the teaching and learning environment.

In this context, a complaint is a student’s expression of dissatisfaction that their rights, existing interests and/or reasonable expectations have been adversely and unjustifiably impacted because of an action, decision or omission within the control or responsibility of the University. Any circumstance related to University operations, services, and decisions, or the conduct of its staff, its students, or people associated with the University or using University facilities may be the subject of a complaint.

A formal compliant must be submitted in writing to the University in accordance with the Complaint and Dispute Resolution policy where an Investigation Panel is constituted to deal with the complaint. However, this is when an informal resolution by the person concerned, a faculty member, Programme Coordinator, or Head of Department has been deemed impossible, inappropriate, or unsatisfactory. The Investigation Panel adopts natural justice – a fair and transparent procedure used when making a decision, which includes the respondent being informed of the complaint. All parties to a complaint (complainant and respondent) must be afforded natural justice. These rules involve parties to a complaint having a reasonable opportunity to prepare and present a case and to have their cases considered justly. Natural justice requires:

- The right to be heard;
- The right to be treated without bias;
17.11. Policy on Academic Conduct and Expulsion

A policy on academic misconduct could be possible reduction of grade or failure on Thesis, examination, or other academic exercise on which the student is alleged to have cheated. If the violation involves a project work spanning multiple courses (such as a Thesis or multiple semester internship), the grade reduction may apply to all courses involved. Another policy could involve the student in a constructive or educational task, which may benefit the student, faculty and the university. Specifically, academic misconducts may cause the imposition of certain disciplinary sanctions such as:

(a) **Letter of Warning**: A warning letter may be issued indicating that the student has been found to be in violation of an academic integrity policy and that failure to comply with policies in the future may result in further disciplinary action to be handled by a subsequent offense. The letter of warning will remain in effect for a period of time as specified by a committee hearing the case.

(b) **Disciplinary Probation**: Disciplinary probation, which is for a period of time specified by a committee hearing the case and approved by the University Senate, is an indication that a student’s status at the university is seriously jeopardized. If the student is found in violation of another University’s policy during the probationary period, a more serious sanction will be levied, including possible rustication from the Programme or any other University’s academic Programmes, suspension, or expulsion from the university.

(c) **Involuntary withdrawal from the Programme or other University’s academic Programmes**: A student may be denied the right to participate in the Programme or other University’s programme(s) and such involuntary withdrawal might be imposed on either a temporary or permanent basis. If the University’s Disciplinary Committee recommends Rustication or Involuntary Withdrawal from the Programme, the student may not apply to another graduate program in the University.

(d) **Suspension**: A student may be suspended from the university for a specified period of time, not to be less than a session comprising two semesters. Suspension requires that a student remove himself/herself from university premises, not attend classes or social activities, and not be present on university examination or accommodation property during the period of suspension.

(e) **Expulsion**: A student may be expelled from the University when there is a very serious violation of the Academic Integrity Policy due to evidence of academic dishonesty in his/her actions. When a student is proven to have violated the Academic Integrity
Policy on more than one occasion, or when a student appears before the University’s Disciplinary Committee after already having been suspended. Expulsion from the institution is permanent. Appeals to the sanction of expulsion must be submitted to the Office of the Deputy Vice Chancellor (Academic). Suspension, expulsion, and rescission of a degree can be recommended by a faculty member, Department/Programme Head, administrator, and University’s Disciplinary Committee, but can be imposed only after approval by the University’s Senate.

(f) Rescission of a degree: A student may have his/her degree rescinded if found to have plagiarized or not to have conducted the research Thesis by himself/herself.

18. Welfare and Careers

18.1. University Health Services

The University Health Centres are located both at the town campus and main campus, and provides health services to protect health at work, assess and advise on fitness for work, and ensure that health issues are effectively managed. The centre promotes and supports a culture where the physical and psychological health of staff, students and others involved in the University is respected, protected and improved whilst at work.

18.2. Counselling

We believe that students are resourceful individuals and have the capacity to fully engage in all aspects of university life. The University Counselling Service offers services to enhance and develop the student’s ability to recognise and strengthen their inner resources. The Programme Coordinator or mentors can also arrange for appointment with a qualified Counsellor/psychotherapist. The Programme has the duty to ensure the good welfare of its students, both national and international, and would from time to time explore opportunities or organise in cooperation with qualified medical experts, other options such as:

- Stress and relaxation workshops
- Workshops on a specific theme, e.g. managing anxiety, depression, grief and loss etc.
- One-to-one sessions
- Support package for more complex cases
18.3. Mental Wellbeing

Students admitted into the Programme would be required to undergo medical tests at the University’s health centre. Beyond this, students with special needs or any underlying illness such as mental illness are required to disclose such information. The Director for health services would keep the disclosures confidential. This would enable the health centre to offer effective and accessible support and advice. With the University Health Centre, which has adequate and qualified personnel as well as state of the art medical facilities, mental health issues would be adequately catered for. If the mental health problem is caused due to academic stress, depression, etc., the student involved should report to the Programme Coordinator, Supervisor(s), or the Director of Health Centre, or the University counseling unit, who will offer prompt attention, contacts and advice. In such cases, a period of temporary withdrawal may be approved by the responsible authority for the affected student(s) for a period of time based on the advice of the Director of Health services. After this period the student when ascertained fit by the Health centre Director can resume studies. In order to boost psychological support to students, the University of Uyo from time to time organise workshops on specific themes such as managing stress, dealing with depression, etc. as well as offering free one to one confidential counselling programme on mental health/illness for students.

18.4. Accident and Injuries

All accidents, dangerous occurrences or near misses must be reported to the academic member of staff giving the lecture, tutorial or supervising the class. It is then essential that a report is filed to allow this to be logged and any potential lessons to be learned, or improvement/fixes to be made to help prevent future occurrences. It is appreciated that mistakes happen and that we can all make them from time to time. The Department fosters a strict no blame culture and would like all occurrences to be reported in order for us to ensure the safety of each researcher, staff member and student within it. We are all responsible for safety.

18.5. Careers

The Programme assists students with several aspects of career services including resume/CV review, interviewing skill development, and part or full-time employment search assistance. We hope to maintain an electronic job board and employment search resources, as well as resources on resume writing and interviewing on the Programme website, when it becomes functional. In addition, the website will have an extensive network of alumni and professional contacts, which students can contact as they seek jobs. Alumni networking events are held at various times
during the academic year. Please avail yourself of these opportunities to keep your career souring.

Through constant interaction with your academic and industry supervisors and mentors, you can develop your employability, gain work experience, make career choices, and find jobs. We do this by opening our students to every available opportunities and information on their career and study options, advice on the careers open to them after their studies, and expert help with making applications. With the high quality academic and industry cooperation, our graduating students are open to employment opportunities, part-time and consultancy jobs. Individual appointments with advisers to discuss personal career plans are also available.

The Programme shall blend the efforts of internationally acclaimed scholars—with those of Africans and African descent, to prepare prospective students for future careers. We shall reform education to satisfy the yearnings of students through the provision of modern infrastructure and on-demand technologies that support seamless knowledge discovery and transfer, for lifelong career opportunities in a technology-driven world.

18.6. Teaching and Paid Work

Qualified doctoral students in the CI Programme can be offered Teaching Assistant (TA) positions, by the Department, where funds are available to fund their stipend. A TA may be involved in tutorials or part-time appointment at not more than six credit hours of undergraduate courses. However, other teaching-related service can be assigned in lieu of teaching. The TA positions carry a stipend and require the associate to enrol for a graduate credit course during each semester of the appointment. The TA appointment is expected to help students develop verbal communication skills and give them valuable experience with teaching. In essence, it will provide an opportunity for them to review and solidify their knowledge of foundational ideas in the Programme, which they will find useful in graduate courses and programming examinations. TAs will assist faculty by handling laboratory sessions, for instance. Each semester, students will need to apply for a TA position by completing a departmental application. To be eligible for a TA appointment, a student must be making satisfactory progress in the Programme. This will mean:

- Making at least ‘B’ or above in core courses.
- Making progress in research as evidenced by: Favourable report from Ph.D. supervisor(s)
- Publications, presentations at Conferences, etc.

Depending on funding and research grants available to the Programme during each doctoral admission cycle, the Programme may award a limited number of Doctoral Fellowships to
students admitted to the Ph.D. CI program. Doctoral fellowships provide tuition scholarships for up to the number of credit hours required for the courses in the doctoral programme. The fellowships do not have a service requirement on the part of the students receiving the awards. Continued funding for subsequent years beyond the first year is contingent upon maintaining a positive academic standing in the programme. Fellowships are similar to assistantships in that they provide stipends.

19. Research Supervision and Mentorship

The Ph.D. Programme requires that supervision should normally be undertaken by a team consisting of at least two members with the appropriate research skills and knowledge, who should be registered on an approved list of supervisors. Where for any reason this is not practicable, for example where one supervisor is based outside the University, one supervisor from the approved supervisory list is acceptable, provided there is an agreement between the supervisors.

Given these considerations it is important that students are aware of the degree of support that is acceptable when conducting research. This Information Handbook outlines good professional practice during the conduct of research and indicates the support that students can expect from their supervisors. Where a student contravenes this guidance it may be considered an assessment irregularity.

Academic staff members who have not previously supervised research students are required to undertake appropriate initial training and development, while experienced supervisors are normally expected to undertake continuing professional development relevant to the supervisory role, for instance participate in appropriate supervisory updating sessions.

There are different models of supervisory team within the University. In joint supervision, the supervisory responsibilities can be shared between members of the supervisory team. In other styles of supervision, different members of the supervisory team may have different roles. There may be, for example, a lead supervisor and a co-supervisor responsible for a smaller element of the planned research; or a lead supervisor and an advisor responsible for, and able to deal with, general and pastoral responsibilities.

Since arrangements may vary, the supervisory team must agree a clear distribution of responsibilities at the outset of the research and update this if the arrangements change. In all instances, one supervisor must be nominated as academic supervisor and this person is ultimately responsible for the quality assurance of the research. The academic supervisor:

- must be a member of staff of the University;
• must have obtained a doctoral degree or have equivalent experience of research;
• be demonstrably research-active;
• should normally have had previous experience of at least one successful supervision, whether as academic or co-supervisor, defined as taking the student all the way through to a research degree award.

In cases where the academic supervisor does not have such experience, the supervisory team must include another member who is a demonstrably active researcher with experience of at least two successful Postgraduate supervisions.

Given these considerations it is important that students are aware of the degree of support that is acceptable when conducting research. This Information Handbook outlines good professional practice during the conduct of research and indicates the support that students can expect from their supervisors. Where a student contravenes this guidance it may be considered an assessment irregularity.

19.1. Students Responsibility

As Ph.D. students, the Programme holds you in high esteem and expects a high level of maturity during your course of study in the University of Uyo. You are expected to,

Know the regulations:

• Know your minimum and maximum periods of study. For a full time Ph.D. student the minimum is 3 years (you cannot submit your thesis more than 3 months before this), the maximum is 4 years (you must apply for an extension if you have not submitted before this).
• If you are on scholarship, know and abide by the terms and conditions of your studentship funding, particularly acknowledging support on any conference presentations and publications.
• Freshmen or new students must register before beginning their studies. Returning students must register at the beginning of each semester or session. Registration may not be backdated, and late registration attracts appropriate financial penalties.

Work with your supervisors:

• agree a suitable topic for research.
• develop during the first year of registration, a thesis outline and timeline (e.g. Gantt chart) to guide the programme of research.
• agree a schedule of regular supervisory meetings.

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- produce work in accordance with the timeline agreed with the supervisors.
- be prepared to take the initiative in realising problems or difficulties, however elementary they may seem.

**Initiate supervisory meetings:**
- take an increasing role in arranging supervisory meetings well in advance.
- attend all supervisory meetings and record brief minutes and action points resulting from the meeting.
- submit written material in sufficient time before the meeting to allow your supervisors to read and comment on it.

**Explore appropriate trainings:**
- attend all seminar presentations and training sessions organised by the Programme.
- attend University seminars, public lectures, inaugural lectures, and other meetings as appropriate.

**Prepare and submit your Thesis on time:**
- discuss with supervisors the preparation of the thesis and decide when it is ready for submission after taking due account of advice from the supervisors. Students are ultimately responsible for their work, supervisors provide guidance and advice.
- submit a thesis within the time allowed by the University Postgraduate School. It is an expectation of funding bodies and the School that all Ph.D. students (whether on 3 or 4 year funded studentships) will complete within 4 years from initial registration. Students writing up into extra year of study will incur an additional fee.

**19.2. Supervisors Responsibility**

Supervisors assist their Ph.D. students with regard to work facilities. There is a small computer laboratory for the Ph.D. CI students in the Departmental building. No specific reading rooms are allocated to Ph.D. students. Ph.D. students also have access to computer laboratories, run by the University ICT Services. Given the interdisciplinary nature of the Programme and to achieve the required mentorship experience, supervisors are encouraged to give Ph.D. students access to their spare office space for study and research purposes.

An academic or main supervisor should:
- be aware of the University’s Code of Practice for Research Degrees and other relevant University regulations
• conduct a needs analysis and any appropriate risk assessments with the student, and ensuring Project Approval is undertaken
• provide the supervisory input to Annual Progress Review
• determine if an Intellectual Property Rights or a Confidentiality agreement is required
• promote awareness of ethical and professional requirements for the conduct of research and ensure that ethical approval is obtained for the research, where appropriate
• be the first point of contact in the supervisory team for the University and ensure that any relevant paperwork relating to the student e.g. extensions, interruptions is properly processed and recorded
• provide pastoral support and guidance to the student and act as a signpost to the University Postgraduate School services
• offer support to students in their personal and career development
• arrange together with the Head of Department or nominee, a replacement supervisor where one of the supervisory team is absent
• arrange and present the student for the final examination or defence

In most instances, the academic supervisor will also be the lead supervisor who will also be responsible for:

• introducing the student to the Department and Faculty, its facilities and procedures
• serving as the first point of contact in the supervisory team for the student
• agreeing with the student a suitable research field of enquiry
• research project management including arranging a timetable of regular meetings in line with the Code of Practice, requiring the student to keep a record of meetings and agreeing the outcome of meetings with them
• arranging a realistic timetable for submission and completion in line with any research requirements and the University’s maximum candidature
• requesting written work according to an agreed schedule and returning work with constructive criticism in a reasonable time, as agreed at the outset of the research with the student
• chairing formal supervisory meetings
• encouraging students to attend research training sessions and seminars in the Department, Faculty and the University, and where relevant externally, attend and present at conferences and seminars

Where there is a lead supervisor, a co-supervisor supervisor should:
be acquainted with the progress of the student’s work and attend formal supervisory meetings at least 3 times per year or additionally as required by the student or lead supervisor

- comment on the student’s work where required by the lead supervisor
- provide additional advice where required e.g. supervise specific elements of data collection, data analysis and thesis preparation
- assume the lead supervisor’s responsibilities if the original lead supervisor is unable to continue (e.g. through illness or departure)
- act as mentor or arbitrator if the student has any problems that cannot be resolved by the lead supervisor

Where supervisors share responsibilities more equally than outlined above (joint supervision) they should collectively agree the allocation of tasks while ensuring that one supervisor acts as academic supervisor. The responsibilities of different supervisors should be recorded on the project approval form and any changes communicated to the University Post Graduate School. Supervisors of research students do not automatically have ownership of the research project undertaken. If an Intellectual Property Rights agreement is required, it is the responsibility of the academic supervisor to determine this.

19.3. Supervisory Support

Over the course of the research the relationship between the student and their supervisor will change. In the early stages of the research the supervisor will induct the student into the research field and acquaint them with the research conducted within it. As the research progresses the student will gradually develop greater independence and by the final stages of the research they will be able to operate as an independent researcher capable of actively engaging in their field. The expectation of this Programme is to build in the students, sound mentorship and research development skills sufficient for good academic conduct and research independence. Hence, supervisory support may include:

- Assistance with the choice of topic;
- Critical and constructive feedback on the work produced;
- Advice on the sources or literature used;
- Guidance on the methodology or techniques used and the approach to data collection;
- Discussion of evidence and results;
- Reading drafts and commenting on issues of substance.
Supervisors should not undertake the actual research itself.

19.4. Supervisory Meetings and Report

Ph.D. supervision normally takes the form of supervisory meetings or tutorials on a regular basis. The exact frequency of meetings or tutorials is determined by agreement between you and your supervisor(s). However, the Ph.D. Computational Intelligence (CI) Programme requires that:

- the Programme Coordinator or the Head of Department maintains an up to date register of staff members who are qualified to engage in research supervision
- there are regular structured interactions made available to the student to meet with at least one member of the supervisory team at least ten times per year, approximately monthly, with no more than an eight week gap between meetings
- at least three of these meetings each year should include the full supervisory team to report, discuss, and agree academic and personal progress (for fulltime students). In cases where the student is not able to meet these requirements for any reason, the supervisory team should agree an equivalent schedule of contacts with the student, using for example e-mail and video conferencing.

19.5. Progress Report

Students on scholarships are required to submit progress reports from time to time to their sponsors to keep their funding running. Hence, the Programme promptly ensures that their reports are ready at the end of every academic year. As such, it is mandatory for every student is required to complete and submit a progress report form to ensure effective monitoring of their progress. This form can be obtained from the office of the Programme Coordinator. The form would be signed or endorsed by the students’ supervisor(s), to confirm its validity before the student finally submits it to the Programme Coordinator.

20. Thesis Preparation and Submission

A Thesis demonstrates the ability of a student to undertake original research. It follows that written documents produced as part of a Ph.D. must solely be the student’s own work. Candidates are examined in the oral examination to demonstrate that the research has been carried out by them, to test their ability to defend their thesis, and establish whether the candidate has satisfactory knowledge of the wider field in which the research is placed. It is crucial that the research must be an intellectual project that is conducted and owned by the student, and where
the theoretical perspective, methodological approach, interpretation of the data generated and the conclusions drawn are all those of the student.

The Postgraduate School issues the Thesis preparation (registration procedure, format, etc.) and submission Guidelines to all Postgraduate students. Please consult this guideline for more information on this matter.

21. Research Facilities and Environment

Generally, school facilities affect the daily performance of faculty members and students who use them. With respect to lecturers, school facilities affect the recruitment, retention, commitment, and effort of lecturers. With respect to students, school facilities affect health, behaviour, engagement, learning, and growth in achievement. Since the University of Uyo plays host to these good facilities (engineering workshops, engineering drawing studios, science and engineering laboratories, classrooms, computer laboratories, internet facilities, libraries, clinical facilities, water facility), the Programme stands to benefit a lot in terms of research and education.

As regards teaching and research methods, we promise a drift from the usual teacher-centred approach to student-centred approach, with the active involvement of students, as opposed to the passive role they play during lectures, currently witnessed in most African universities, where lecturers become the sole source of knowledge. This can be very risky in the event that the teacher is inadequately informed on the subject or is not adequately trained in the art of communication. A teaching approach that centres mostly on teachers is bad for the STEM and medical related disciplines, and could fastly kill students’ interest in the Programme. We shall cure this syndrome permanently by instituting a norm where lecturers will (collaboratively) relate with students preferably on a one-to-one basis – to work on their deficiencies, get all involved in class work and practical demonstrations, and bring out the best in the students.

In the same way, physical facilities will be shared at the domiciled departments, and we shall not totally assume knowledge of theoretical background, but shall mentor to impart knowledge and skills. Hence, these facilities shall ensure that students are grounded in the theoretical, conceptual and practical know-how – a sure way to bring out the creativity and innovation in them, as the application of CI requires full knowledge and understanding of theoretical and experimental regimens. Mid stream, students will softly migrate unto the CI realm with hands on digital facilities required to implement the procedures experienced – the Artificial Intelligence way; where conceptual AI models will be cooperatively built and perfected. Hence, efforts shall be put in place to procure as a matter of priority, essential learning and computation resources (both software and hardware), to ensure a smooth administration of the Programme proceedings.
Available resources and opportunities at the University of Uyo shall be available for students, staff members and visiting partners. Also, remote communication shall be maintained, and the partnerships sustained. To this end, we shall leverage on available shared resources to execute the proceedings of the Programme. Students shall gain access to resources domiciled in departments and laboratories for the teaching and practical component of the Programme. We expect the set up of a Central CI Laboratory for the Programme. Specialized research resources (host servers and databases) in partners’ institutions and centres, shall also be accessed remotely through the our knowledge gateway. At the completion and furnishing of the CI laboratory, a world class Centre with state-of-the-art CI facilities shall emerge, and the Centre shall become a comfortable destination for education and research at the national, regional and international levels.

Also, spatial configurations, temperature and temperature control, light, classroom size and space, acoustic and noise, type of building for 21st century learning, and the quality of air in an environment have impacts on students and faculty members’ ability to perform. These factors affect the health and general well-being of both staff members and students. The University of Uyo already plays host to clean air, good light, and a quiet, comfortable, and safe learning environment.

22. Research Ethics and Integrity

The University of Uyo has a strong tradition in research culture and the institution has very high standards for research excellence. All research involving human participants undertaken by staff members and students should be reviewed by a research ethics committee.

The researcher has the primary responsibility for maintaining the highest ethical standards inherent in a culture of research excellence. Students in the Ph.D. Programme (as in other Programmes) at the University of Uyo are expected to maintain the highest ethical standards in proposing, conducting and reporting their research in the Thesis or Dissertation. The content of our taught modules ensures that both Professional research methods are taught and that issues of research ethics are discussed and participants’ questions are addressed. Thus, strong academic ethics become part of our Programme.

The University requires that any research involving human participants and/or animals is conducted in accordance with the highest ethical standards. Supervisors must ensure that the student’s research Project complies with all of the requirements of the University’s ethics policy.

All forms of ethical misconduct that breach the integrity of the research work is seriously frowned against. There are ethics committees that should be used as a tool for researchers to help establish, maintain and review to ensure high ethical standards. The responsibility of the
researcher extends right throughout the life of the research project. It does not begin and end with the ethical review process. Where appropriate, compliance includes ethical approval from the relevant ethics committee.

There are two ethics committees that review research applications from University of Uyo staff and students. The committee that is most appropriate to review a Ph.D. application will depend on the type of research that is conducted and where participants are being recruited from:

- The University of Uyo Teaching Hospital Institutional Health Research Ethical Committee;
- The Akwa Ibom State Ministry of Health Ethics Committee (administered by the Federal Ministry of Health).

The Centre for Research and Development (CERAD) is processing a comprehensive research ethics policy for the University of Uyo. The policy document will become operational as soon as it is approved by the University Senate.

Furthermore, Ethical behaviours for students and staff members of the University community are documented in the University’s service charter and code of conduct/ethics for students and staff members, respectively. Please visit https://uniuyo.edu.ng for details on this and other policies.

23. **Plagiarism, Collusion and Unfair Means**

Plagiarism is the unacknowledged inclusion in a work or material derived from the published or unpublished work of another (including experts and fellow or former students), whether intentional or unintentional. This act is considered dishonest and unprofessional. The description of ‘work’ in this case includes internet sources as well as print materials. You have plagiarised a work if you:

- quote someone else’s work ‘word for word’ without placing it in quotation marks and providing a reference for the source.
- use statistics, tables, figures, formulae, data, diagrams, questionnaires, images, computer code etc. created by others without acknowledging and referencing the original source.
- summarise, or paraphrase the work or ideas of others without acknowledging and referencing the original source.
- present co-authored work as yours without acknowledging the contributions of others.
- submit, in whole or in part, work which has previously been submitted for assessment at the University of Uyo or elsewhere, without fully referencing the earlier work.
- buy or commission a piece of work and present it as your own work.
23.1. What Constitutes Unfair Means

The basic principle guiding the preparation of any piece of academic work is that the work submitted must be your own work. Hence, involving in the act of plagiarism including, submitting bought or commissioned work, double submission (or self-plagiarism), collusion and fabrication of results are not acceptable as these constitute ‘unfair means’ and violate the very principle of good academic conduct. Rules about these forms of cheating apply to all assessed and non-assessed work. It is therefore an unfair means to,

(i) steal the ideas or work of others through: copying, cutting, and pasting; taking or closely paraphrasing ideas, passages, sections, sentences, paragraphs, drawings, graphs and other graphical material from books, articles, internet sites or any other source or sources and submitting them for assessment without appropriate acknowledgement.

(ii) submit for assessment or archiving, bought or commissioned work (for instance from internet sites, essay ‘banks’ or ‘mills’) – in whatever form including: purchasing or commission of either in part or in whole a piece of work. This act implies a clear intention to deceive your supervisors or the examiners. The University also takes an extremely serious position of any student who sells, offers to sell or passes on their own assessed work to other students.

(iii) engage in double submission (self-plagiarism) by resubmitting previously submitted work on one or more occasions (without proper acknowledgement), either copying a part or in whole, a piece of work, which credit had already been given.

(iv) collude or work together with your fellow students to produce a piece of work, all or part of which is then submitted independently as individual work(s). This includes passing on work in any format to another student. However, Collusion does not occur where students are involved in group work or are encouraged to work together to produce a single piece of work as part of the assessment process.

(v) fabricate, make up, falsify in any way, any part of a practical or laboratory work. This is regarded as a dishonest practice and an academic fraud.

(vi) facilitate or assist your fellow student(s) to use or adopt any of the forms of unfair means defined above.

23.2. How Can I Avoid Unfair Means

You can avoid unfair means by submitting a work that is entirely your own and must not include the work of any other person(s), unless it is properly acknowledged and referenced. As part of your programme of studies you will be taken through the tenets of critical writing and how to
cite and reference sources appropriately in order to avoid plagiarism. This is an essential skill that you will require throughout your University career and beyond. Hence,

(i) you must follow any guidance on the preparation of assessed work given by the academic department setting the assignment.

(ii) you are required to declare that all work submitted is entirely your own work.

As a code of practice, your supervisor or mentor should guide you and be involved in every phase of your research work, as isolating yourself may lead you to compromise the very principles of good academic conduct. It is therefore important to turn in and review all developed manuscripts with your supervisor or mentor, before submitting them for assessment. Should you have any concerns about appropriate academic practices or if you are experiencing any personal difficulties which in one way or the other affect your work, please feel free to consult with your course coordinator, supervisor or mentor, or another member of staff involved.

23.3. What Happens if I Use Unfair Means

Any form of unfair means will be treated as a very serious academic offence and disciplinary action may be taken under the University Disciplinary Regulation. Where unfair means is found to have been used, the University may impose penalties ranging from awarding no grade for the piece of work or failure in a Ph.D. examination through to expulsion from the University, in extremely serious cases.

23.4. Detection of Unfair Means

The Ph.D. Computational Intelligence Programme carefully screens all submitted works through rigorous reviews and seminar presentations for quality. The University of Uyo through the National Universities Commission (NUC) has subscribe to a national plagiarism detection service called ‘Eagle Scan’, which will help academic staff members in their research works, and to identify the original source of material submitted by students. This means that academic staff members have access to specialist software that searches a database of reference material gathered from professional publications, student essay websites and other work submitted by students. It is also a resource which can help tutors, supervisors or mentors, to advise students on ways of improving their referencing techniques. Your work is most likely to be submitted to this service for the detection of unfair means.
24. Research and intellectual property

The CI Programme requires respect for the intellectual property rights of others, including yours. Care must be taken to ensure that our use of copyrighted materials in courses and other areas conforms to the copyright law. It is therefore important to protect intellectual property rights, software license agreements and copyright laws. The aim of intellectual property right is to foster an academic environment that encourages ethical conduct in all scholarship. Research and intellectual property right prevents falsification and plagiarism in proposing, performing, or reviewing research, or in reporting research results. It ensures compliance with Federal regulations for protection of researchers, human subjects, the public, or the welfare of laboratory animals. Its violation does not include honest error, honest differences in interpretations or judgments about data, or disputes about authorship. Specifically, the University’s intellectual property policy seeks to encourage the,

- creation of original scholarship, including online work and electronic media,
- development of educational materials, applications and products, and

Students of the Ph.D. CI programme shall own copyrights in the papers, theses/dissertations, and other scholarly works they produce while at the University, except in the following circumstances:

(i) Scholarly work authored by a faculty member with assistance from a student shall be owned by the University faculty member;
(ii) The University owns any student work that constitutes or is part of a sponsored work as defined in the University’s intellectual property policy;
(iii) The University owns any work for which the University has obtained a written transfer of copyright from the student;
(iv) The University owns any student works created as part of the student’s employment at the University.

Finally, the University has an interest in using certain student-owned works for academic purposes (e.g., grading), and in maintaining copies of student work for administrative and disciplinary purposes. As a condition for enrolment, the Ph.D. students in the CI programme grant the University the irrevocable, perpetual right to use and retain all copies of student work for these purposes. However, Student works that constitute notes of classroom lectures or exercises shall not be used by the student for commercial purposes.
25. **Information Privacy Policy**

The University Information Policy helps users understand their responsibility to protect the integrity of these resources, to properly use and protect information, and to respect the rights and privacy of other users. The rules apply equally to users who connect their own devices to the University’s network. It prevents impersonating another individual in communication (e.g., forged email, texts, social media postings); restricting or denying access to the system by legitimate users, downloading, viewing, or transmitting fraudulent, harassing, pornographic, or threatening messages or materials containing ethnic slurs, racial epithets, or other content that may be construed as disparagement of others based on their race, colour, religion, national or ethnic origin, gender, gender identity, gender expression, marital status, age, disability, veteran status, or any other status protected by federal, state, or local laws. Finally, it prevents violation of the terms of use of online media forums, including social networking websites, mailing lists, chat rooms, and blogs.

More information on privacy policy can be found in the ICT policy document at: [https://uniuyo.edu.ng](https://uniuyo.edu.ng).

26. **Technology Use**

The use of technology includes network resources with full access to the Internet via a secure network, as well as online library services, printing, career resources, and online course areas. The purpose of the University’s ICT policy is to support its mission of teaching, research, and community engagement. The policy condemns the use of information resources to monitor another user’s data communications or to read, copy, change, or delete another user’s files (journals, data, games, music, video), or software without permission of the owner; and using or installing or attempting to use or install software not properly licensed. It also condemns storing, sending or processing sensitive personal information (e.g. financial and health information; driver’s licence and national identity numbers) about individuals without express authorization and proper security protections or in violation of applicable law; transmitting sensitive or proprietary information to unauthorized persons or organizations; sending unsolicited messages without authorization to a large number of recipients, including staff and students; transmitting confidential information or information otherwise protected by law, over the network without proper safeguards like encryption.
27. **Research Expectations and Skills Development**

The following is a summary of the skills that you are expected to develop over your research degree. Some of these skills areas will overlap and should effectively guide you when working with others and in contributing to the wider society and environment.

- Knowledge and Intellectual Abilities (develop: sufficient knowledge base and transfer abilities, cognitive abilities, creativity)
- Personal effectiveness (professional and career development, self-management and personal qualities)
- Research Governance and Organisation (exhibit: professional conduct, research management and finance funding and resources)
- Engagement, influence and Impact (gain ability to: engage and impact, mentor, communicate and disseminate and work with others)

In conjunction with the skills above, we encourage you to: develop relevant academic networks, attend seminars and conferences, present papers, publish papers, support your own career development, and contribute to your research environment by attending appropriate internal and external events.

28. **National, Regional and International Cooperation/Network**

Partnerships established in this Programme shall mentor students and staff members to address the unmet needs of the Programme through the incubation and delivery of world-class (innovative) research while providing meaningful opportunities to develop and grow a pipeline of talents. The noticeable changes will range from opportunities to work on cutting-edge problems of national, regional, and international interest and importance to the procurement and setup of the required research infrastructure, including potential channels of funding.

To actualize this change, adequate mechanisms for long-term partnerships and funding shall be developed. To ensure national, regional and international visibility, we shall inject the expected quality into the Programme such that international standards are not compromised. Out of this shall then flow a multitude of opportunities and expertise commitments capable of synthesizing innovations that will synergize development priorities of the partners involved. The regional context will suddenly experience the needed catalyst for new partnerships that would contribute to increased competitiveness and innovation, as well as produce added-value and marketable products and services. Our research activities shall straddle the strategic and applied sectors in the continuum of research from basic, through strategic and applied, to adaptive. Our strategic research seeks full understanding of the principles underlying Computational Intelligence
processes. The applied research projects shall be generalizable to make potentially significant impact on the society. The problem solving approach we shall adopt makes it inherently applied, leading towards adaptive prototype technologies to solve applied problems of regional or global interest.

We shall support students and staff members exchange and scholarship through internship, academic and research visitors–to attract research diversity, and establish strong mentorship experience. Indeed, interaction among international colleagues for efficient sharing of both knowledge and experience will help strike a sense of collegian spirit and reverse brain drain. Also, success through cooperation between experts from different cultures would be achieved with mutual understanding of the problem-solving process. This exchange shall certainly facilitate strong solidarity and bond among scholars, and produce the required results in real time. We shall also rely on international collaborations, where current trends technologies and specialized facilities are required, to gain the expected knowledge transfer and capacity building, because within the African region, CI progress is incipient. Hence, the Programme has establish connection with academic colleagues and Centres in African universities working in the areas of CI, e.g., The ACE ICT Park in Obafemi Awolowo University (OAU), Nigeria; Human Language Technology (HLT) Group, CSIR: MERAKA Institute, South Africa; and University of Ghana Business School (UGBS), Ghana; to pull together like minds for the establishment of a vibrant CI Centre that will serve the African region. Indeed, the cooperation with UGBS will provide strength for drawing regional partners, as well as perfect curriculum for the Business Intelligence module within the Humanities and AI Programme option. A comprehensive list and contacts of our national, regional and international partners is found in section 32.3.

In order to maintain strong and robust partnerships, we shall rely on cognitive and sociocultural ties between collaborating partners and users – as access to potential collaborators, relational resources and common cognitive repertoire are basic resources for new tie formations – intended for efficient knowledge acquisition, sharing, transfers and exchanges. The implication of this idea is that those with common cognitive repertoire are more likely to experience positive knowledge exchange processes.

In the near future our expectation is that this Programme shall become one of the leading national, regional and international hubs of expertise in CI methodologies. We are sure to perfect a vibrant network base for creative technology, deviating from the ‘cloned’ to a solid state technology that will dwarf the previous era, in ways that will change all processes driven by the explosion of data and the need to efficiently process, analyze, store and share it – the Big Data experience.

The faculty members of this Programme have a long history of international collaborations in research and teaching. We shall engage collaborations in the form of Adjunct lecturing,
Sabbatical and Postdoctoral fellowships, external moderators and examiners, joint academic publications and joint execution of applied research Projects.

29. Graduation

Doctoral candidates must complete degree requirements no later than five semesters after beginning the CI Programme course work. No time extension shall be granted for doctoral students unless all degree requirements other than the Thesis (including the approval of the research topic, if needed) have been completed by the expiration of the five-semester time limit. University Withdrawal policy through suspension of studies provides students who are unable to complete a semester with the option of withdrawing from all classes, or from the university, for that semester. Students taking a total university withdrawal from all of their courses on the CI Programme may find their financial aid for that particular semester affected.

30. Health and Safety

The CI Programme aims to foster excellence across a broad range of subjects in the STEM, Medical and Humanity disciplines, with leading staff members informing all our teaching and research. We shall therefore play a significant role in preparing the future workforce to respond to new challenges posed by the changing nature of work. These changes are the result of technological advances, globalization, new and emerging risks, occupational health disparities associated with the changing demographics of the Nigerian workforce, and a myriad of other factors. We shall from time to time seek the services of qualified Occupational Safety and Health Education trainers within and outside UNIUYO, to help provide training on how students and staff members should conduct themselves responsibly in a safe and healthy way, and improve awareness of work-related safety and health issues. To ensure continued awareness and education, We shall advocate the mainstream of such trainings into the University of Uyo orientation exercise, as Programmes may be practical- or laboratory-based, and will involve interaction with equipment, as well as other health-risk facilities.

30.1. Emergency

In the event of an emergency, please notify the security personnel (Santana Security Services) at a desk nearest to you. The security services are found in all academic and administrative buildings, so they can direct emergency response personnel to the individual(s) requiring assistance and alert University staff. In the event of a fire, everyone is required to vacate the building through the nearest stairwell or exit, depending on the type of building. More extensive
emergency procedures can be obtained from the Information and Public Relations Unit of the University.

30.2. Lost Property

Any lost property found on any of the campuses should be reported, or taken to the nearest security unit at any of the campuses of the university or the porters lodge, at the nearest Hostel.

30.3. Department Opening Hours

All Departments in the University of Uyo officially opens for academic and administrative transactions or services at 8:30 am, and shuts down at 4:00 pm. However academic research activities and supervision may continue at personal level beyond the official hours.

30.4. Working Hours for Students

The official working hours for students is same as in section 30.3, but students may work with their supervisors and mentors beyond these hours.

30.5. Electrical Appliances

The University of Uyo is an advocate of sustainable energy and safety of electrical appliances. Please ensure that all electrical appliances are turned off from the mains at the end of the days’ transaction or service, to avoid fire outbreak. In the event of an impending fire outbreak due to an electrical appliance or fault, please inform the nearest security unit for immediate contact of the fire service unit of the University, or contact the fire service unit directly.

31. Relevant Information Source/Contact

31.1. Academic Support

Though every student is deemed to be fully responsible for his study and is encouraged to be independent in his work, however, when in need of academic support, the first point of call to turn to for help and personal advice should be your main supervisor/mentor, for instance, if you are encountering any difficulties in your study or in things which affect your study. Most difficulties can be easily resolved through your supervisor, though he or she may sometimes suggest that you contact one of the many support services in the University for specialised information or support.
It is recognised that occasionally a research student may not feel able to approach a supervisor about a particular matter. If you are in such a position, you should discuss the matter with your Programme Coordinator or the Head of Department. If for some reason you do not feel able to discuss the difficulties with these persons, there are several sources of advice within the University including the Dean of Postgraduate School; Dean of Science Faculty; and University services (e.g., Students Affairs Department, GRASA).

31.2. Research and Development (R&D) Support

On admission, every student is required to compulsorily register courses offered both at the departmental and/or Faculty with modules dealing with research and development. However, the student is not restricted only to the courses offered by the Programme. In collaboration with your supervisor, R&D support may be sourced externally (e.g., from companies, firms or industries relevant to the student's research work). Additionally, the university’s library and online journal database as well as departmental laboratories and computer laboratories are also available for R&D support.

To enhance R&D, cooperative resource sharing for enhanced academic development, networks connecting national and international colleagues working in related areas must be developed. Hence, students and faculty members of the Computational Intelligence Programme are encouraged to: (i) register as members of Professional bodies, to enable them gain access to Professional society’s Journals; (ii) seek access to reputable open access journals and also publish their research findings in same; (iii) join academic platforms such as ResearchGate – to maintain constant communication with researchers, and mentors in their fields. The Ph.D. Programme shall in due course create a web-based solution with permissions and links to important online resources on CI, and register with important open access resources relevant to students and staff members’ needs; (v) Cooperating partners with publications in the field of CI shall be encouraged to upload or share their pre-prints. However, restriction of copyrights and access shall be strictly for the purpose of knowledge sharing.

Our international partners have been of immense help to the Programme as regards access to academic journals. However, in the near future, and with proper funding, the Programme shall subscribe to at least one quality online Journal such as Elsevier, IEEE, and Springer.

31.3. Student Services Information

A number of student related services are provided for by the Programme. First, information on course registration and general university calendar, timelines and general activities can be
obtained from the university’s website: [https://uniuyo.edu.ng](https://uniuyo.edu.ng). Second, information regarding Accommodation, Graduate Students’ Association (GRASA), ID Card scan can be obtained from the Admissions Unit, while information pertaining to Campus Security, Counselling, Health and Medical, Libraries, Physical Activity and Recreation, and Academic Advising can be sourced from the University’s Student Affairs division (at the town campus) or Information unit (at the main campus).

31.4. Language Support

The language of instruction for education in the University of Uyo is English language. For students in the Programme whose first language is not English or who may have difficulty comprehending the level of English language required for postgraduate studies, adequate assistance would be arranged in collaboration with our Foreign Language department, for enrollment in language courses, but only French and German are supported by this department. The affected students would therefore be given non-credit bearing English language courses at no charge. The charges will be absorbed by the University of Uyo.

31.5. Information on Staying Safe

The University of Uyo and its host state Akwa Ibom State is unarguably one of the safest places to be, however, the concept of safety and adequate preparation for emergencies in a University community is the responsibility of everyone. The following information if taken seriously would go a long way in ensuring a safe stay throughout your study period. First, every laboratory in the University of Uyo is covered by a Safety Code of Practice which applies to both staff members and students. It is the responsibility of the laboratory technologist, staff or attendant to ensure that all laboratory users have been informed of this Code of Practice and ensure strict compliance. Under no circumstance should you operate any equipment or make use of any reagent or material in the laboratory without getting adequate instruction and/or assistance from the laboratory staff. In the event of fire outbreak, all should endeavour to meet at the designated muster point. Make unique markings on your personal belongings to forestall theft. If at any point you miss any of your belongings, report immediately to the security unit for assistance on recovering them. When going out especially at night, please inform your colleagues on where you are going and who you are going to meet. Ensure you lock your door before leaving your residence. If you must drink or smoke, please do it responsibly.
32. Ph.D. CI Course Curriculum

The Ph.D. Programme in Computational Intelligence (CI) is an interdisciplinary Programme that permeates all disciplines – as problems in every sphere of life now require Artificial Intelligence (AI) solutions. This course is therefore innovative because it aims at synthesizing related disciplines, to offer nature-inspired computational methodologies and approaches that address complex real-world problems to which mathematical or traditional modelling fails for some reasons: (i) the processes might be too complex for mathematical reasoning; (ii) it might contain uncertainties during the process; or (iii) the process might simply be stochastic in nature. The methods applied (fuzzy logic, artificial neural networks, evolutionary computing, biologically inspired algorithms such as: swarm optimization, artificial immune system, genetic algorithm) are close to the human’s way of reasoning (i.e. uses inexact and incomplete knowledge to produce control actions in an adaptive way). Hence, given the speedy advancement in technology, and the dynamic, complex and unpredictable nature of our environments, coupled with the high level of uncertainties inherent in the every spectrum of life, resulting in the production of huge amount of data every passing second – the Big Data problem, CI is the sure way to go.

In this Programme, students will be subjected to three levels of innovative treatment: (i) theoretical foundation with a practice interface; (ii) conceptual framework/architectural development; (iii) nature-inspired procedure (algorithms) formulation and implementation. The outcome is a novel and evidence-based solution, model or prototype that is precise and ready for commercialization.

32.1. Course Outline

The course outline for the Programme consists of the following modules: 8 interactive research-driven courses, 2 mini CI Projects, 1 Industry-based experience; 1 large CI Project; and student’s Thesis. The course delivery mode for each course is prescribed in Section 32.2. The first year consists of 10 courses spread across two semesters. During the industry-based experience, we shall reach out to our industry and/or sectoral partners and their affiliates, and depending on the students’ area of interest, secure places of industrial training for them. Where a student has identified a place of engagement, the Programme shall give approve and document the industry after due diligence check. The Programme shall also monitor and evaluate the students’ performance, to ensure they gain the relevant experience. The duration of the industry training shall not be longer than 6 months.
**First Semester:**

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<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Credit Hour</th>
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<tbody>
<tr>
<td>CI 911</td>
<td>Current Topics in Specialized Areas</td>
<td>3</td>
</tr>
<tr>
<td>CI 912</td>
<td>Computational Intelligence Methodologies and Applications I</td>
<td>4</td>
</tr>
<tr>
<td>CI 913</td>
<td>Theory and Practice in Specialized Area I</td>
<td>4</td>
</tr>
<tr>
<td>CI 914</td>
<td>Critical Writing</td>
<td>3</td>
</tr>
<tr>
<td>CI 915</td>
<td>Mini CI Project I</td>
<td>4</td>
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<td><strong>Total:</strong></td>
<td><strong>18</strong></td>
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**Second Semester:**

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<th>Course Code</th>
<th>Description</th>
<th>Credit Hour</th>
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<tbody>
<tr>
<td>CI 921</td>
<td>Conceptual CI Model Design and Synthesis</td>
<td>4</td>
</tr>
<tr>
<td>CI 922</td>
<td>Computational Intelligence Methodologies and Applications II</td>
<td>4</td>
</tr>
<tr>
<td>CI 923</td>
<td>Theory and Practice in Specialized Area II</td>
<td>4</td>
</tr>
<tr>
<td>CI 924</td>
<td>Statistics for Machine Learning</td>
<td>3</td>
</tr>
<tr>
<td>CI 925</td>
<td>Mini CI Project II</td>
<td>4</td>
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<td></td>
<td><strong>Total:</strong></td>
<td><strong>18</strong></td>
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**Third Semester:**

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<tr>
<th>Course Code</th>
<th>Description</th>
<th>Credit Hour</th>
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<tbody>
<tr>
<td>CI 931</td>
<td>Industry-based Experience</td>
<td>6</td>
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<tr>
<td></td>
<td><strong>Total:</strong></td>
<td><strong>6</strong></td>
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The fourth and fifth semesters consists of the large Project involvement and Thesis (which spills unto the sixth semester). In the fourth and fifth semesters, each student shall be integrated into a
large research Project depending on their area of interest and the identified development challenge. The Programme shall also assign competent supervisors/mentors to students. The aim is for students to derive the needed mentorship experience, and gain practical experience (or skills) on research project management, grant writing and development skills, research ethics, data collection, experiments and analysis, report writing and documentation, and publication writing, sufficient for research independence.

**Fourth and Fifth Semesters:**

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<tr>
<th>Course Code</th>
<th>Description</th>
<th>Credit Hour</th>
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<tbody>
<tr>
<td>CI 941</td>
<td>Large CI Project</td>
<td>6</td>
</tr>
<tr>
<td>CI 942</td>
<td>Student Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

**Sixth Semester:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Credit Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI 942</td>
<td>Student Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

### 32.2. Course Description and Delivery System

**CI 911: CURRENT TOPICS IN SPECIALIZED AREA**

**Delivery Mode:** Grouped Supervise; Study Online

**Credits:** 3

**Area of Study:** Interdisciplinary

**Overview:** Current topic is the main organizing principle guiding a research progress, and the ability to identify a problem represents the core subject matter of scholarly communication. It is also the means by which we arrive at other topics of conversations and the discovery of new knowledge and understanding. The content of this course is designed to showcase the current trends, technologies and innovations in the various specialty areas of each discipline or course of study. Current topics and trends would be chosen from the special interests of instructor(s) and
student(s) in their field of study. Oral and written presentation of the topics/report in a technical paper format is required.

Course Objectives:

- Identify modern trends and latest technologies in specialty area
- Explain, critically review, discuss modern trends in area of interest; identify a problem (open or close); analyze research papers on modern technologies, discover frameworks and new concepts to advance the field.
- Write review papers on the current topics of interest.

Learning Outcomes: At the end of this course, students should;

- Demonstrate awareness of the current trends and technologies in field of study;
- Gain working knowledge of the core principles behind the current technology in area of study;
- Have direction to develop an area of interest.

Course Modules:

Module 0 – Concepts, terms and sources identification: Identify concepts and terms that make up the topic statement, and sources that can help broaden, modify, or strengthen initial thoughts and arguments on the chosen field of interest. These include sources of criticism, sources of new ideas, sources of historical context, and sources of interdisciplinary insight.

Module 1: Critical review of the progress made in specialized area of interest or study that has undergone substantial development.

Module 2: Provocative new theories and concepts, and discussion of general principles.

Module 3: Synthesis of the latest research findings in a specialized area to present innovative solution to problems – the interdisciplinary approach.

Module 4: Computational perspective

Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Peer-reviewed technical paper on current topic in area of</td>
<td>55%</td>
</tr>
</tbody>
</table>
### IC 912: COMPUTATIONAL INTELLIGENCE METHODOLOGIES AND APPLICATIONS I

**Delivery Mode:** Grouped Supervise and Study Online  
**Credits:** 4  
**Area of Study:** Interdisciplinary  

**Overview:** Computational Intelligence (CI) is a relatively new area which is becoming more and more important in society today and will be in the future, especially due to the growing possibilities of gathering data and the need for intelligent systems. CI deals with nature-inspired computational methodologies and approaches to solve complex problems for real-world challenges, to which traditional methodologies and approaches are ineffective or infeasible. As such, CI methodologies and approaches aim at creating intelligent systems by using innovative and nature-inspired algorithms. This course is therefore designed for those who are interested in designing and developing intelligent systems and/or are about to commence research in computational intelligence. The course will focus on the main CI approaches and methodologies, namely artificial neural networks, genetic algorithms, swarm optimization, and fuzzy systems. The course research-based and mentors students into investigating the current state of research in CI areas as well as to gain comprehensive theoretical knowledge from scientific research about the basic concepts and features of CI methodologies and approaches. The course is very practical-oriented and hands-on since it focuses on showing students real-world applications of CI approaches and guides them to use theoretical knowledge of their respective disciplines to design and build CI algorithms for solving real-world problems. Furthermore, the course aims at encouraging students to critically think and reflect about the learned concepts and algorithms as well as emphasizes discussions among students on CI related topics.
Course Objectives:

- Gain comprehensive theoretical knowledge as well as practical skills related to the design, implementation and analysis of CI approaches, algorithms and methods;
- Explain, critically review, and discuss research papers in areas of CI; independently analyze research papers in areas of CI and write literature review papers on topics of CI;
- Discuss and argue about current topics in CI;
- Design and build CI algorithms and approaches to real-life problems, analyze and improve these algorithms and approaches, as well as argue, justify and discuss decisions made during the development processes.

Learning Outcomes: At the end of this course students should;

- Understand the fundamental concepts of Computational Intelligence and Machine Learning;
- Demonstrate awareness of the major challenges and risks facing Computational Intelligence and the complexity of typical problems within the field;
- Understand concepts about various AI approaches;
- Know how to apply CI algorithms to different problem areas.

Course Modules: The course outline shall be broken down into units, where contents would be populated by the course instructors. ACCIR emphasizes up to date contents in line with best practices.

Module 0 – Course Overview: In this unit, students will get familiar with the elements of the course and how to use them in the learning process. These elements include the study guide, web resources, assignments, discussion forums, etc.

Module 1 – Introduction to Computational Intelligence: This unit will lead students to go through several important overview literatures regarding the fundamental ideas and researches of computational intelligence. Moreover, the unit will point out the key conferences, journals and societies related to computational intelligence.

Module 2 – Artificial Neural Networks: This unit will lead students to go through several important literatures on the topic of artificial neural networks (ANN). Students will learn about the general concept of ANN, different types of ANN, different types of learning (supervised and unsupervised learning), and applications of ANN algorithms in real world. At the end of the unit, students will be asked to reflect on what they have learned and discuss
about questions related to ANN with each other in a discussion forum as part of their participation marks.

*Module 3 – Genetic Algorithms:* This unit will lead students to go through several important literatures on the topic of genetic algorithms (GA). Students will learn about the general concept and features of GAs, different types of GAs, different strategies of using GA features, and applications of GA algorithms in real world. At the end of the unit, students will be asked to reflect on what they have learned and discuss about questions related to GA with each other in a discussion forum as part of their participation marks.

*Module 4 – Swarm Optimization:* This unit will lead students to go through several important literatures on the topic of swarm optimization. Students will learn about the general concept and features of swarm optimization, different types of swarm optimization algorithms and their concepts/features, and applications of swarm optimization algorithms in real world. At the end of the unit, students will be asked to reflect on what they have learned and discuss about questions related to swarm optimization with each other in a discussion forum as part of their participation marks.

*Module 5 – Fuzzy Systems:* This unit will lead students to go through several important literatures on the topic of fuzzy systems. Students will learn about the general concept and features of fuzzy systems, different strategies for using features of fuzzy systems, and applications of fuzzy systems in real world. At the end of the unit, students will be asked to reflect on what they have learned and discuss about questions related to fuzzy systems with each other in a discussion forum as part of their participation marks.

*Module 6 – Hybridization of CI Algorithms:* This unit will lead students to go through several important literatures on the topic of hybridization of computational intelligence algorithms. Students will learn about why such hybrid algorithms can be beneficial, the general concepts of how to combine algorithms, different types of hybrid algorithms and their benefits, and applications of such hybrid algorithms in real world. At the end of the unit, students will be asked to reflect on what they have learned and discuss about questions related to hybridization of CI algorithms with each other in a discussion forum as part of their participation marks.

Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Peer-reviewed literature review paper(s) on a computational intelligence topic</td>
<td>25%</td>
</tr>
</tbody>
</table>
Assignment 2 | Programming task (task given; algorithm can be chosen) | 20%
Assignment 3 | Presentation and discussion of reviewed paper(s) | 20%
Assignment 4 | Programming task (task given; combine two algorithms or choose another algorithm) | 20%
Participation | | 15%

Total: 100%

CI 913: THEORY AND PRACTICE IN SPECIALIZED AREA I

Delivery Mode: Taught; Grouped study online
Credits: 4
Area of Study: Multidisciplinary

Overview: This course covers the theoretical/conceptual background and practice in a specialized area, identified by students. The course is tailored to address the specific needs of students and their incline towards approaching with confidence, a specific area of specialty. A one-to-one discussion with the students to uncover as well as assess their minds and maturity in the intended area of specialty is expected. Issues identified by research in the chosen area and working examples of practical exercises (empirical experiments, analysis) are considered together with the prospects and implications of the field.

Course Objectives:

- Build theoretical and practical background knowledge in the subject area
- Prepare conceptually and gather enough evidence in the form of techniques and methods
- Gain knowledge of reproducing a research

Learning Outcomes: On completion of the course, students should;

- Have a grip of an area of interest;
- Be able to identify a problem in a field of interest within his/her domain/discipline;
- Be conversant with techniques/methods of solving problems in the area of interest;
- Be able to develop a system framework of an identified problem.

Course Modules: The course outline shall be broken down into units, where contents would be populated by the course instructors based on an identified area. ACCIR emphasizes up to date contents in line with best practices.

*Module 0:* Identify an appealing area of research – extensive literature review of identified research area; concise documentation of methodological progress.

*Module 1:* Theories and Methods – methodological workflow analysis; workflow sequence development.

*Module 2:* Practice – Implement an existing research; knowledge discovery

*Module 3:* Computational perspective

Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Peer-reviewed literature review paper(s) on an identified area</td>
<td>25%</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Ability to develop and reproduce a research area based on an identified use case(s)</td>
<td>40%</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>Presentation and discussion of literature review paper(s)</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

**CI 914: CRITICAL WRITING**

Delivery Mode: Taught; Grouped Study Online

Credits: 3

Area of Study: Multidisciplinary

Overview: Critical writing is an innovative course involving the theories and practice aimed at buttressing academic and professional writings. It aims to equip students on becoming independent writers of scholarly articles. This course is to take the students through the academic writing process. While characteristics of academic writing vary across disciplines, successful academic writing largely relies on the use of inquiry and rhetoric to engage a scholarly
conversation. These three concerns – inquiry, rhetoric and conversation – form the three major components of CI 914. The writing skills developed in this course will serve the students across all academic disciplines and beyond the university.

Course Objectives:

- Employ various stages of the writing process, including brainstorming, outlining, drafting, revising and editing;
- Achieve critical reading and understanding of topics from various perspectives in relation to the area of study;
- Analyse and discuss with logical and contrary evidences obtained from various primary sources;
- Perform, evaluate, integrate and document research;
- Write a standard academic article worthy of a first or second quartile Journal

Learning Outcomes: At the end of this course students should;

- Demonstrate ability to understand comprehension in related areas;
- Gain ability to conduct analysis when presented with diverse propositions;
- Present arguments and perspectives in line with authors in the same subject matter;
- Formulate a well-structured research question/hypothesis;
- Draw logical conclusions from the analysis and evaluation carried out.

Course Modules:

*Module 0:* Writing skills – finding, evaluating, analyzing, and synthesizing appropriate sources – composing, editing and revising.

*Module 1:* Reading and analytic skills – understand argument’s major assertions and assumptions, evaluate supporting evidence.

*Module 2:* Reading and writing for inquiry – reading (learning, thinking, and communicating in academic setting); writing (brainstorming, outlining, drafting, revising, editing).

*Module 3:* Persuasion facility – adaptation to a variety of special cases and readers in academic writing.
Module 4: Research skills – ideas integration, conventions of attribution, and correct citation.

Module 5: Grammar and mechanics as needed – standard written English (revising and editing for appropriateness)

Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Assigned and independent readings</td>
<td>40%</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Oral presentation</td>
<td>25%</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>Documented research report</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Total:</td>
<td>100%</td>
</tr>
</tbody>
</table>

CI 815/915: MINI CI PROJECT

Delivery Mode: Grouped Supervised and Study Online

Credits: 4

Area of Study: Interdisciplinary

Overview: This course shall give the students the opportunity to study an area of interest in great depth and implement a mini research project in their discipline. The overall goal is to motivate creativity and initiative in students, and enable useful interactions between them and mentors. This will develop in them research and presentation skills they will need in the future, and sound research independence to grow into strong academic mentors. The idea of cooperative intelligence shall be exhibited in this course as both students and teachers shall be working towards a common goal (the discovery of and innovative solution).

Course Objectives:

- Knowledge acquisition and sharing
- Research culture and problem solving processes
• Cooperate discovery of solutions to questions through the application of scientific methods

Learning Outcomes: On completion of this course, students should be able to;

• Carryout substantial research-based project;
• Demonstrate capacity to improve student achievement, engagement and retention;
• Demonstrate understanding of the ethical issues associated with research engagements;
• Analyze data and synthesize research findings;
• Report research findings in verbal and written forms;
• Use research findings to advance education theory and practice.

Course Modules: The course module for this course will be derived from the various activities in the keynote Projects, and in collaboration with academic, industrial and sectoral partners.

Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary report</td>
<td>Report evaluation</td>
<td>60%</td>
</tr>
<tr>
<td>Defense</td>
<td>Final report writing and oral defense</td>
<td>25%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

CI 921: CONCEPTUAL CI MODEL DESIGN SYNTHESIS

Delivery Mode: Taught; Grouped Study Online

Credits: 4

Area of Study: Interdisciplinary

Overview: Over the last decade there has been growing interest in ‘conceptual modeling’. This is signified by a greater intensity of research and volume of papers on the topic. What is becoming apparent, however, is that when it comes to conceptual modeling there are quite different views and opinions. These differences may be beneficial for creating a debate that takes the field
forward, but they can also lead to confusion. Conceptual modeling/design synthesis is the core and starting phase of the modeling/design process. In this course, a number of design resources will be sieved to construct conceptual systems which meet the functional requirement. In complex domains, this task is performed by an expert who has a thorough understanding of the domain and much experience of design. As a task requiring both skill and knowledge, conceptual design has been a focus of research by the Artificial Intelligence (AI) community, which attempts, as a more general goal, to emulate intelligent behavior in computer systems.

Course Objectives:

- Organize the problem solving flow for a computational intelligence problem, analyzing the possible options and choosing the most appropriate techniques or combinations of techniques.
- Understand the scope of computational Intelligence (CI), and the types of tasks that can be tackled with CI methods
- Document state-of-the-art for research and practice in conceptual modelling.
- Build well-structured conceptual models.
- Decide, defend and criticize a solution to a computational intelligence problem, arguing on the strengths and weaknesses of the chosen approach.
- Learn the fundamentals of neural, evolutionary, and fuzzy Modelling, and apply them effectively to develop correct and efficient solutions to a computational intelligence task.

Learning Outcomes: At the end of this course students should;

- Enhance their understanding of representative system;
- Know how to facilitate efficient conveyance of system details between stakeholders;
- Know how to provide point of reference for system designers to extract system specifications;
- Know how to document a system for future reference;

Course Modules:

*Module 0: Problem description and goals*
Module 1: System description (a description of the problem situation and those elements of the real world that relate to the problem)

Model 2: System representation (ontology, UML diagram, use case diagrams, etc.)

Module 3: Conceptual model (non-software specific description of the computer simulation model, objectives, inputs, outputs, content, assumptions and simplifications of the model)

Module 4: Model design (design of the constructs for the computer model (data, components, model execution, etc.)

Module 5: Computer model (software specific representation of the conceptual model)

Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Ability to synthesize a conceptual model</td>
<td>40%</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Model design</td>
<td>25%</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>Computer model</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>15%</td>
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<tr>
<td></td>
<td>Total:</td>
<td>100%</td>
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</tbody>
</table>

CI 922: COMPUTATIONAL INTELLIGENCE METHODOLOGIES AND APPLICATIONS II

Delivery Mode: Grouped Supervise and Study Online

Credits: 4

Area of Study: Interdisciplinary

Prerequisite: CI 912

Overview: This course will teach a broad set of tools that will provide the mathematical and algorithmic framework for tackling problems using Artificial Intelligence (AI) and Machine Learning (ML). AI and ML are highly interdisciplinary fields with impact in different applications, such as, Biology, Engineering, Linguistics, Robotics, Medical, Language, Economics, Law and Computer Science. AI is the science and engineering of making intelligent
machines, especially intelligent computer programs, while ML refers to the changes in systems that perform tasks associated with AI. Topics in this module are directed towards solving problems in specific disciplines, and may include a subset of the following: problem solving by search, heuristic (informed) search, constraint satisfaction, games, knowledge-based agents, supervised learning, unsupervised learning; learning theory, reinforcement learning and adaptive control. Students are expected to present one or more real case studies that might require solutions from computational intelligence. The options are considered while outlines of one or more possible solutions, discussing their advantages and disadvantages. Applications and case studies on real problems in regression, classification, control systems, identification, system optimization and Expert systems, Bayesian Reasoning and Support Vector Machines

Course Objectives:
- Design of key intelligent systems technologies including knowledge-based systems, neural networks, fuzzy systems, evolutionary computing, and hybrid systems;
- Practice in integration of intelligent systems technologies for domain-specific applications.

Learning Outcomes: At the end of this course students should;
- Gain working knowledge of knowledge-based systems, neural networks, fuzzy systems, evolutionary computing, and hybrid systems;
- Analyze problems with indepth understanding;
- Apply intelligent systems technologies in a variety of Use Cases or application domains;
- Design and build CI algorithms and approaches to identified problem;
- Implement typical computational intelligence algorithms in MATLAB;
- Present ideas and findings effectively, Justify and discuss decisions made during the development process.

Course Modules: The course outline shall be broken down into units, where contents would be populated by the course instructors. ACCIR emphasizes up to date contents in line with best practices.

Module 0 – Construction of Conceptual framework; CI algorithm development and modeling; Design of Rule-Based Expert Systems and Fuzzy Expert Systems: This module models and implements Rule-based expert systems; Uncertainty management; Fuzzy sets and operations
of fuzzy sets; Fuzzy rules and fuzzy inference; Fuzzy expert systems; Fuzzy logic controller for Use Cases;


Module 2 – Case study I: Evolutionary computation algorithms: Chromosomes, fitness functions, and selection mechanisms; Genetic algorithms: crossover and mutation; genetic programming; evolution strategies;

Module 3 – Case study II: Cost-sensitive control in wireless sensor networks;

Module 4 – Hybrid Intelligent Systems: Neural expert systems; Neuro-fuzzy systems; Evolutionary neural networks; Applications to Internet of Things (IoT).

Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Ability to represent a problem and develop conceptual framework</td>
<td>40%</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Algorithm development and modelling</td>
<td>25%</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>System implementation and simulation</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>100%</td>
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</tbody>
</table>

CI 923: THEORY AND PRACTICE IN SPECIALIZED AREA II

Delivery Mode: Taught; Grouped Study Online

Credits: 4

Area of Study: Multidisciplinary
Prerequisite: CI 913

Overview: This course covers the development of new system framework using models discovered in CI 913. The course shall be tailored to address the specific needs of students and their incline towards approaching with confidence, a specific area of specialty. A one-to-one discussion with the students to uncover as well as assess their minds and maturity in the intended area of specialty is expected. Issues identified by research in the chosen area and working examples of practical exercises towards design of new frameworks as well as model building are considered together with the prospects and implications of the field.

Course Objectives:
- build new framework
- implement the workability of the framework.

Learning Outcomes: On completion of the course, students should;
- Be able to develop a practical solution in the form of working framework to a problem in a chosen area of specialty;
- Be able to implement the developed framework;
- Gain knowledge of reproducing a research.

Course Modules: The course outline shall be broken down into units, where contents would be populated by the course instructors based on an identified area. ACCIR emphasizes up to date contents in line with best practices.

Module 0: New framework development – assemble relevant models/components; construction/design of new framework of proposed solution;

Module 1: Framework modules testing – data gathering; verification and validation;

Module 3: Framework implementation – simulation activity; results;

Module 4: Framework evaluation – identification and use of relevant metric; results comparison with existing literature; results interpretation (any improvements achieved or degradation experienced; causes of error and optimization).
Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Development of new framework (novelty important)</td>
<td>50%</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Framework implementation and evaluation</td>
<td>35%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>100%</strong></td>
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</tbody>
</table>

**CI 924: STATISTICS AND MACHINE LEARNING**

Delivery Mode: Taught; Grouped Study Online  
Credits: 3  
Area of Study: Interdisciplinary

Overview: Machine Learning is approached by many experts as statistical theory of the problem of the function estimation from a given collection of data. This course will introduce students to fundamental concepts of probability theory and statistical reasoning, and will cover many important algorithms and modelling used in supervised learning of Neural Networks. Besides covering what is taught in most machine learning courses, it will introduce tools and underlying mathematical concepts of data interpretation which work with specific models of neural networks. Exercises will show practical outcomes of the material. The course will also give students an opportunity to check if their understanding is correct and gain confidence they understand probability and statistical concepts and what they mean in the neural network space. The course will build the mathematical background necessary for Machine Learning and use MATLAB; R software ToolBox such as TensorFlow to create and train neural networks for specific practical problems.

Course Objectives:

- Provide basic concepts and logic of statistical reasoning.
- Choose, generate and apply data.
- Diverse applications of statistics and its relevance in real life.
Learning Outcomes: At the end of the course students would be able to;

- Utilize a comprehensive set of descriptive statistical methods and statistical software, to organize, summarize, and display data in a meaningful way;
- Use probability theory to evaluate the probability of real world events;
- Apply continuous probability distributions to evaluate the probability of real world events;
- Construct confidence interval estimates for population parameters for single and multiple populations, based on sample data;
- Choose appropriate statistical methods in various analysis situations;
- Perform regression and correlation analysis, to: predict the value of one variable based on the value of the other variable; and to estimate the magnitude of change in one variable due to a given change in the other variable;
- Perform practical demonstration using any computational toolboxes.

Course Modules:

Module 0 – Representing uncertainty: reasonable criteria, basic probability theory and measurements, joint probability distribution, conditional probability distribution, rules of probability (sum rule, product/chain rule, Baye’s rule);

Module 1 – Independence and Conditionally independence: Continuous random variables, summarizing probability distributions (Mean, Variance, Nth moment)

Module 2 – Learn the data distributions and data sampling, classification: Exponential family distribution (Bernoulli, Multinomial, Poisson, Normal (Gaussian), ...);

Module 3 – Producing data: Sampling and Study design

Module 4 – Parameter Estimation: Exponential family representation; Maximum Likelihood Estimation of model parameters; Bayesian probabilities; Bayesian Inference; Conjugate priors.

Module 5 – Exploratory data analysis: Examining distributions and relationships

Module 6 – Regression and Optimization

Module 7 – Practical applications
Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Ability to represent problem and develop conceptual</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>framework</td>
<td></td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Algorithm development and modelling</td>
<td>25%</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>System implementation and simulation</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**CI 925: INDUSTRY-BASED EXPERIENCE**

Delivery Mode: Industry Site  
Credits: 3  
Area of Study: Interdisciplinary

Overview: This course shall expose students to the prevailing practice in the industry/sector, where they can gather knowledge on the techniques and creative skills from industry experts. This experience will position the students well as regards practical industry experience, and offer good interaction/interface between the students and the industry.

Course Objectives:

- Address the skill gap that exists between the academia and industries/sectors  
- Learning experience and practical insights into prevailing tools and methodologies in area of specialty

Learning Outcomes: At the end of the industry experience students would;

- Gain practical exposure to facilities in their area of study;  
- Become familiar with laboratory equipment in the field and operations.
Course Modules: The course module shall be determined by the industry/sector where students are attached. However, at the end of the industry experience, students will be evaluated at the industry site, and scores transferred for the purpose of final assessment.

Evaluation: The course shall be assessed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry experience</td>
<td>Final evaluation</td>
<td>60%</td>
</tr>
<tr>
<td>Defense</td>
<td>Final report writing and oral defense</td>
<td>25%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Total:</td>
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</table>

CI 931: LARGE CI PROJECT

Delivery Mode: Grouped Supervise and Study Online

Credits: 6

Area of Study: Interdisciplinary

Overview: This course shall give the students the opportunity to study an area of interest in great depth and implement a keynote Project with Project Participants. The overall goal is to motivate creativity and initiative in students, and enable useful interactions between them and mentors. This will develop in them research and presentation skills they will need in the future, and sound research independence to grow into strong academic mentors. The idea of cooperative intelligence shall be exhibited in this course as both students and teachers shall be working towards a common goal (the discovery of and innovative solution).

Course Objectives:

- Knowledge acquisition and sharing
- Research culture and problem solving processes
• Cooperate discovery of solutions to questions through the application of scientific methods

Learning Outcomes: On completion of this course, students should be able to;

• Carryout substantial research-based project;
• Demonstrate capacity to improve student achievement, engagement and retention;
• Demonstrate understanding of the ethical issues associated with research engagements;
• Analyze data and synthesize research findings;
• Report research findings in verbal and written forms;
• Use research findings to advance education theory and practice.

Course Modules: The course module for this course will be derived from the various activities in the keynote Projects.

Evaluation: The course shall be assessed as follows:

<table>
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<th>Activity</th>
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</thead>
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<tr>
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<td>Defense</td>
<td>Final report writing and oral defense</td>
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<tr>
<td>Participation</td>
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</tr>
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CI 932: STUDENT THESIS

Delivery Mode: Client Contact/Interaction with Supervisor

Credits: 6

Area of Study: Interdisciplinary

Overview: This course shall give the students the opportunity to study an area of interest in great depth and develop innovative solution to a problem that addresses at least one SDG. The overall goal is to motivate creativity and initiative in students, and enable useful interactions between them and mentors. This will develop in them research and presentation skills they will need in
the future, and sound research independence to grow into strong academic mentors. The idea of cooperative intelligence shall be exhibited in this course as both students and teachers shall be working towards a common goal (the discovery of and innovative solution).

Course Objectives:
- Knowledge acquisition and sharing
- Research culture and problem solving processes
- Cooperate discovery of solutions to questions through the application of scientific methods

Learning Outcomes: On completion of this course, students should be able to;
- Carryout substantial research-based project;
- Demonstrate capacity to improve student achievement, engagement and retention;
- Demonstrate understanding of the ethical issues associated with research engagements;
- Analyze data and synthesize research findings;
- Report research findings in verbal and written forms;
- Use research findings to advance education theory and practice.

Course Modules: The course module for this course will be derived from the various activities in the keynote Projects.

Evaluation: The course shall be assessed as follows:

<table>
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<tr>
<td>Preliminary report</td>
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<tr>
<td>Supervision</td>
<td>Supervisors evaluation</td>
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</tr>
<tr>
<td>Defense</td>
<td>Final report writing and oral defense</td>
<td>60%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
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<td>100%</td>
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</table>

32.3. Academic Staff List

The Ph.D. Programme brings together staff members from various disciplines to accomplish a common goal through cooperative intelligence. Hence, candidates are expected from the
proposed disciplines. Also, academic staff members cover the proposed disciplines, to offer theoretical background, methodologies, and intelligent solutions to problems.

<table>
<thead>
<tr>
<th>S/No.</th>
<th>Name of Staff</th>
<th>Highest Qualification/Rank</th>
<th>Area of Specialization</th>
<th>Department and Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dr. Moses E. Ekpenyong</td>
<td>Ph.D./Associate Professor</td>
<td>Speech and Wireless Communication Technology</td>
<td>Computer Science <a href="mailto:mosesekpenyong@uniuyo.edu.ng">mosesekpenyong@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>2.</td>
<td>Dr. Udoinyang G. Inyang</td>
<td>Ph.D./Associate Professor</td>
<td>Soft Computing and Knowledge Engineering</td>
<td>Computer Science <a href="mailto:udoinyanginyang@uniuyo.edu.ng">udoinyanginyang@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>3.</td>
<td>Dr. Uduak A. Umoh</td>
<td>Ph.D./Associate Professor</td>
<td>Soft Computing</td>
<td>Computer Science <a href="mailto:uduakumoh@uniuyo.edu.ng">uduakumoh@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>4.</td>
<td>Dr. Daniel E. Asuquo</td>
<td>Ph.D./Senior Lecturer</td>
<td>Wireless Communication Networks</td>
<td>Computer Science <a href="mailto:danielasuquo@uniuyo.edu.ng">danielasuquo@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>5.</td>
<td>Dr. Patience U. Usip</td>
<td>Ph.D./Senior Lecturer</td>
<td>Knowledge Representation</td>
<td>Computer Science <a href="mailto:patiencebassey@uniuyo.edu.ng">patiencebassey@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>6.</td>
<td>Dr. Okure U. Obot</td>
<td>Ph.D./Associate Professor</td>
<td>Soft Computing</td>
<td>Computer Science <a href="mailto:okureobot@uniuyo.edu.ng">okureobot@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>7.</td>
<td>Dr. Victor E. Ekong</td>
<td>Ph.D./Associate Professor</td>
<td>Software Engineering</td>
<td>Computer Science <a href="mailto:victoreekong@uniuyo.edu.ng">victoreekong@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>8.</td>
<td>Dr. Uyinomen O. Ekong</td>
<td>Ph.D./Associate Professor</td>
<td>Cyber Security</td>
<td>Computer Science <a href="mailto:uyinomenekong@uniuyo.edu.ng">uyinomenekong@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>9.</td>
<td>Dr. Imo J. Eyoh</td>
<td>Ph.D./Senior Lecturer</td>
<td>Soft Computing</td>
<td>Computer Science <a href="mailto:imoeyoh@uniuyo.edu.ng">imoeyoh@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>10.</td>
<td>Dr. Edward N. Udo</td>
<td>Ph.D./Senior Lecturer</td>
<td>Hardware Systems</td>
<td>Computer Science <a href="mailto:edwardudo@uniuyo.edu.ng">edwardudo@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>11.</td>
<td>Dr. Enobong E.</td>
<td>Ph.D./Associate</td>
<td>Biological Modelling</td>
<td>Mathematics</td>
</tr>
<tr>
<td>S/No.</td>
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<td>12.</td>
<td>Dr. Paul J. Udoh</td>
<td>Ph.D./Senior Lecturer</td>
<td>Bio-elasticity</td>
<td>Mathematics</td>
</tr>
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</tr>
<tr>
<td>13.</td>
<td>Dr. Ubon A. Abasiekwere</td>
<td>Ph.D./Senior Lecturer</td>
<td>Ordinary Differential Equations</td>
<td>Mathematics</td>
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<tr>
<td>14.</td>
<td>Dr. Sikiru A. Sanni</td>
<td>Ph.D./Professor</td>
<td>Partial Differential Equations</td>
<td>Mathematics</td>
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</tr>
<tr>
<td>15.</td>
<td>Prof. Mfoniso U. Umoren</td>
<td>Ph.D./Professor</td>
<td>Experimental Design</td>
<td>Statistics</td>
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<td><a href="mailto:mfonisoumoren@uniuyo.edu.ng">mfonisoumoren@uniuyo.edu.ng</a></td>
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<td><a href="mailto:edwinnsien@uniuyo.edu.ng">edwinnsien@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>17.</td>
<td>Dr. Nse S. Udoh</td>
<td>Ph.D./Senior Lecturer</td>
<td>Optimization and Operations Research</td>
<td>Statistics</td>
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<td><a href="mailto:nsesudoh@uniuyo.edu.ng">nsesudoh@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>18.</td>
<td>Prof. Comfort U. Inyang (f)</td>
<td>Ph.D./Professor</td>
<td>Food and Industrial Microbiology</td>
<td>Microbiology</td>
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<tr>
<td>19.</td>
<td>Prof. Ime R. Udotong (m)</td>
<td>Ph.D./Professor</td>
<td>Environmental Health Impact Assessment</td>
<td>Microbiology</td>
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<tr>
<td></td>
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<td><a href="mailto:imeudotong@uniuyo.edu.ng">imeudotong@uniuyo.edu.ng</a></td>
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<tr>
<td>20.</td>
<td>Prof. Joseph P. Essien (m)</td>
<td>Ph.D./Professor</td>
<td>Biotechnology</td>
<td>Microbiology</td>
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<td>21.</td>
<td>Dr. Ofonime U. M. John (f)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Environmental Microbiology</td>
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<td>22.</td>
<td>Dr. Samuel I. Eduok (m)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Environmental Microbiology</td>
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<td><a href="mailto:samueleduok@uniuyo.edu.ng">samueleduok@uniuyo.edu.ng</a></td>
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*Programme Option: Physical and Applied Sciences*
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<tr>
<td>23.</td>
<td>Dr. Naomi U. Asamudo (f)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Industrial Microbiology</td>
<td>Microbiology [<a href="mailto:naomiasamudo@uniyo.edu.ng">naomiasamudo@uniyo.edu.ng</a>]</td>
</tr>
<tr>
<td>24.</td>
<td>Prof. Kingsley E. Akpabio (m)</td>
<td>Ph.D./Professor</td>
<td>Biodiversity and Natural Gene Preservation</td>
<td>Botany and Ecological Studies [<a href="mailto:kingsleyakpabio@uniuyo.edu.ng">kingsleyakpabio@uniuyo.edu.ng</a>]</td>
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<tr>
<td>25.</td>
<td>Dr. Edu J. Inam (f)</td>
<td>Ph.D./Associate Professor</td>
<td>Environmental Chemistry, Water Quality and Climate Change</td>
<td>Chemistry [<a href="mailto:eduinam@uniuyo.edu.ng">eduinam@uniuyo.edu.ng</a>]</td>
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<tr>
<td>26.</td>
<td>Prof. Bassey A. Antia (m)</td>
<td>Ph.D./Professor</td>
<td>Organic Chemistry</td>
<td>Chemistry [<a href="mailto:basseyantia@uniuyo.edu.ng">basseyantia@uniuyo.edu.ng</a>]</td>
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<td>27.</td>
<td>Dr. Atim S. Johnson (f)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Inorganic Chemistry</td>
<td>Chemistry [<a href="mailto:atimjohnson@uniuyo.edu.ng">atimjohnson@uniuyo.edu.ng</a>]</td>
</tr>
<tr>
<td>28.</td>
<td>Prof. Idara O. Akpabio (m)</td>
<td>Ph.D./Professor</td>
<td>Applied Geophysics and Geological Mining</td>
<td>Physics [<a href="mailto:idaraakpabio@uniuyo.edu.ng">idaraakpabio@uniuyo.edu.ng</a>]</td>
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*Programme Option: Engineering*

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<td>29.</td>
<td>Prof. Aniedi O. Ette (m)</td>
<td>Ph.D./Professor</td>
<td>Materials and Metallurgical Engineering</td>
<td>Mechanical and Aerospace Engineering [<a href="mailto:aniedietette@uniuyo.edu.ng">aniedietette@uniuyo.edu.ng</a>]</td>
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<td>30.</td>
<td>Prof. Linus O. Asuquo (m)</td>
<td>Ph.D./Professor</td>
<td>Materials and Metallurgical Engineering</td>
<td>Mechanical and Aerospace Engineering [<a href="mailto:linusasuquo@uniuyo.edu.ng">linusasuquo@uniuyo.edu.ng</a>]</td>
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<td>31.</td>
<td>Prof. Umana T. Itaketo (m)</td>
<td>Ph.D./Professor</td>
<td>Control Systems</td>
<td>Electrical, Electronics and Computer Engineering [<a href="mailto:umanaitaketo@uniuyo.edu.ng">umanaitaketo@uniuyo.edu.ng</a>]</td>
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<td>32.</td>
<td>Dr. Ozuomba Simeon (m)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Software Systems</td>
<td>Electrical, Electronics and Computer Engineering [<a href="mailto:ozuombasimeon@uniuyo.edu.ng">ozuombasimeon@uniuyo.edu.ng</a>]</td>
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<tr>
<td>33.</td>
<td>Dr. Constance</td>
<td>Ph.D./Senior</td>
<td>Hardware Systems</td>
<td>Electrical, Electronics and Computer</td>
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<tr>
<td></td>
<td>Kalu (f)</td>
<td>Lecturer</td>
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<td>Engineering</td>
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<td><a href="mailto:constancekalu@uniuyo.edu.ng">constancekalu@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>34.</td>
<td>Dr. Innocent O. Oboh (m)</td>
<td>Ph.D./Associate Professor</td>
<td>Environmental Engineering and Simulation</td>
<td>Chemical and Petroleum Engineering</td>
</tr>
<tr>
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<td><a href="mailto:innocentoboh@uniuyo.edu.ng">innocentoboh@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>35.</td>
<td>Prof. Paul A. Nwafor (m)</td>
<td>Ph.D./Professor</td>
<td>Reproductive Pharmacology</td>
<td>Pharmacy</td>
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<td><a href="mailto:paulnwafor@uniuyo.edu.ng">paulnwafor@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>36.</td>
<td>Prof. Herbert O. C. Mbagwu (m)</td>
<td>Ph.D./Professor</td>
<td>Toxicology</td>
<td>Pharmacy</td>
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<td><a href="mailto:herberthmbagwu@uniuyo.edu.ng">herberthmbagwu@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>37.</td>
<td>Dr. Tenderwealth C. Jackson (m)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Nonotechnology and Drug Delivery</td>
<td>Pharmacy</td>
</tr>
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<td><a href="mailto:clementjackson@uniuyo.edu.ng">clementjackson@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>38.</td>
<td>Dr. Sunday Awofisayo (m)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Bio-pharmaceutics and Pharmacokinetics</td>
<td>Pharmacy</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td><a href="mailto:sundayawofisayo@uniuyo.edu.ng">sundayawofisayo@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>39.</td>
<td>Dr. Peace M. E. Ubulom (f)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Entomology and Parasitology</td>
<td>Pharmacy</td>
</tr>
<tr>
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<tr>
<td>40.</td>
<td>Dr. Grace E. Essien (f)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Reproductive Pharmacology</td>
<td>Pharmacy</td>
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<td><a href="mailto:graceessien@uniuyo.edu.ng">graceessien@uniuyo.edu.ng</a></td>
</tr>
<tr>
<td>41.</td>
<td>Dr. Emmanuel O. Olorunsola (m)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Physical Pharmaceutics</td>
<td>Pharmacy</td>
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<tr>
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<td><a href="mailto:emmanuelolorunsola@uniuyo.edu.ng">emmanuelolorunsola@uniuyo.edu.ng</a></td>
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<tr>
<td></td>
<td><strong>Programme Option: Pharmaceutical Technology</strong></td>
<td></td>
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</tr>
<tr>
<td>42.</td>
<td>Prof. Anietie E. Moses (m)</td>
<td>Ph.D./Professor</td>
<td>Medical and Public Health Microbiology and immunology</td>
<td>Clinical Sciences</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>43.</td>
<td>Dr. Christie A. Akwaowo (f)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Health Systems and Policy</td>
<td>Clinical Sciences</td>
</tr>
<tr>
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<td><a href="mailto:christieakwaowo@uniuyo.edu.ng">christieakwaowo@uniuyo.edu.ng</a></td>
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<tr>
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<tr>
<td>44.</td>
<td>Dr. Emem G. Abaraham (f)</td>
<td>Ph.D./Senior Lecturer</td>
<td>Ophthalmology</td>
<td>Clinical Sciences</td>
</tr>
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<tr>
<td>45.</td>
<td>Dr. Timothy E. Nottidge (m)</td>
<td>Ph.D./Associate Professor</td>
<td>Orthopedic Surgery</td>
<td>Clinical Sciences</td>
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<td><a href="mailto:timothynottige@uniuyo.edu.ng">timothynottige@uniuyo.edu.ng</a></td>
</tr>
</tbody>
</table>

**Programme Option: Humanities and AI**

| 46.   | Prof. Eno-Abasi E. Urua (f) | Ph.D./Professor           | Phonetics and Phonology, Digital Humanities               | Linguistics and Nigerian Languages        |
|       |                            |                            |                                                             | eno-abasiuru@uniuyo.edu.ng                |
| 47.   | Prof. Imelda I. Udoh (f)   | Ph.D./Professor           | Sociolinguistics and Language Documentation             | Linguistics and Nigerian Languages        |
|       |                            |                            |                                                             | imeldaudoh@uniuyo.edu.ng                 |
| 48.   | Dr. EmenObong O. Udoh (m)  | Ph.D./Senior Lecturer     | Language Technology and Documentation                    | Linguistics and Nigerian Languages        |
|       |                            |                            |                                                             | ememobongudoh@uniuyo.edu.ng              |
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| 50.   | Dr. Ogbonna Anyanwu (f)    | Ph.D./Associate Professor | Semantics                                                  | Linguistics and Nigerian Languages        |
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| 52.   | Dr. Robert E. Ekpenyong (m) | Ph.D./Associate Professor | Remote Sensing                                              | Geography and Natural Resources Management |
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| 53.   | Dr. Uwem E. Ituen (m)      | Ph.D./Senior Lecturer     | Geographical Information Systems                            | Geography and Natural Resources Management |
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| 54.   | Prof. Ntiedo Umoren        | Ph.D./Professor           | Decision Sciences                                           | Business Administration                   |
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### National Partners

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<tr>
<td>54.</td>
<td>Prof. Ganiyu A. Aderounmu (m)</td>
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### Regional and International Partners

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<td>56.</td>
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