

# **NATIONAL UNIVERSITIES COMMISSION**



## **SELF-STUDY FORM FOR ACCREDITATION OF POSTGRADUATE PROGRAMMES**

# **NUC/PG/SSF**

**MARCH 2017**

# NATIONAL UNIVERSITIES COMMISSION

## SELF-STUDY FORM

UNIVERSITY OF PORT HARCOURT

.....  
Name of University submitting the Form



**Master of Science (M.Sc) in Pure and Industrial Chemistry**

.....  
Title of the Programme/Department

**Duration of Programme**

Two Years

Three Years

.....  
**Full-time (Years)**

.....  
**Part-time (Years)**

15th March 2017

Date Form is completed.....

## CONFIDENTIALITY OF INFORMATION

The information supplied in this form is solely for the confidential use of the  
National Universities Commission and its authorized agents

## **NOTES FOR COMPLETING THE SELF – STUDY FORM**

The Form is to be completed in respect of the University and the Programme for which accreditation is being sought.

Please attach the following to the completed Form:

- (a) The curriculum and syllabus of the programme for which accreditation is sought;
- (b) Current time – table/schedule of classes offered in all the years of the programme. This should include the names of lecturers/instructors, number of periods and subjects taught by each;
- (c) Past question papers and marking schemes of the examinations taken in the past three years;
- (d) External examiners' reports for the programme in the last three years;
- (e) Evidence of funding for the programme obtained from the university and other sources.

Universities that have not graduated students from the programme to be accredited should attach past question papers of the annual (semester) examinations in lieu of paragraph (d) above.

Eight (8) copies of the completed Form and Eight (8) copies of each of the item listed from (a) - (e) above, in respect of each programme to be accredited, should be forwarded to:

The Executive Secretary,  
National Universities Commission,  
26 Aguiyi Ironsi Street,  
Maitama,  
Abuja  
Nigeria.

**A. THE UNIVERSITY**

1. The University of Port Harcourt, East-West Road, Choba.

P.M.B. 5323, Port Harcourt, Nigeria.

a. Website: [www.uniport.edu.ng](http://www.uniport.edu.ng)

b. Tel.: +234 (0) 84 230890 – 99 ext. 3035

c. Email: [vc@uniport.edu.ng](mailto:vc@uniport.edu.ng)

2. **Date founded:** 1975

3. **Name and Address of Proprietor of the University**

Federal Government of Nigeria

Tel: - Not applicable -

E-mail: - Not applicable -

4. **Names of the Members of the Board of Trustees**

- Not Applicable

5. **Name and Qualification of Vice Chancellor**

Prof. Ndowa E. S. Lale, *FAvH, Fest*

B.Sc. (Maiduguri), Ph. D. (Newcastle-upon-Tyne)

a. Tel: +234(0)8037450801

b. Email: [nes.lale@uniport.edu.ng](mailto:nes.lale@uniport.edu.ng); [vc@uniport.edu.ng](mailto:vc@uniport.edu.ng)

6. **Mission, Vision, Objectives of University**

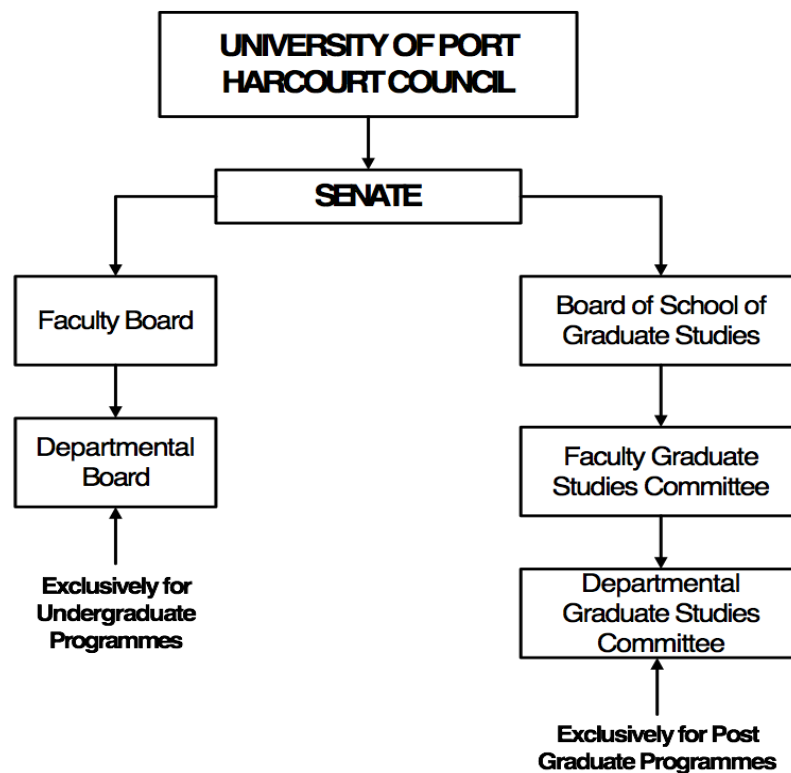
**Vision:** The University of Port Harcourt aims to be ranked amongst the best universities in Africa, renowned for its teaching, research, creativity and innovation.

**Mission:** The mission of the University of Port Harcourt is the pursuit of academic excellence, advancement of knowledge and community service through quality teaching, life-long learning, social inclusion, strengthening civil society and policy-relevant research that addresses the challenges of contemporary society. To achieve this mission the university is guided by the spirit of enquiry, self-reliance, fairness, and ethical and professional standards of the disciplines.

**Academic Objective:**

- To contribute to human development, self-reliance and unity through the advancement and propagation of knowledge and to use such knowledge for the service to the community and humanity

**7. Organisation, Administration and Control**



**B. ACADEMIC MATTERS**

1. *Names of the College/Faculty/School and Department in which the Postgraduate programme is domiciled and Postgraduate College/School.*

**Name of School:** School of Graduate Studies, University of Port Harcourt, Nigeria

**Name of Faculty:** Faculty of Science

**Name of Department:** Department of Pure and Industrial Chemistry

2. **Brief history of the programme:**

Graduate studies in Chemistry commenced in the 1984/85 session with four areas of specialization, namely: Analytical, Organic, Inorganic and Physical Chemistry. In 2004/05, a Post-Graduate Diploma Programme in Chemistry was added to meet the need to fill the gap for the increasing number of those seeking higher degrees in Chemistry. Like the curricula of the undergraduate programme in the Department, those of the graduate programmes have also undergone modifications in scope and content to meet the challenges of a changing world in the scientific community. The MSc programme was revised in 1990 to reflect the industrial chemistry option. The second revision of the graduate programmes in the Department was approved to commence in the 2008/2009 academic session. With this last revision, the Department now runs MSc and PhD programmes in ten (10) specialized areas namely:

- (i) Analytical chemistry
- (ii) Inorganic chemistry
- (iii) Physical chemistry
- (iv) Organic chemistry
- (v) Environmental chemistry
- (vi) Petroleum chemistry/petrochemicals
- (vii) Mineral processing/chemical metallurgy
- (viii) Polymer science/technology
- (ix) Powder technology and product processing
- (x) Pharmaceutical/medicinal chemistry

The turn-over of graduate students in the MSc programme has risen over the years. Generally, staff-student relationship has been cordial.

3. **Philosophy, aims and objectives of the programme**

*The philosophy, aims and objectives of the programme as related and distinct from the general institutional philosophy, aims and objectives.*

**Programme Philosophy**

The Department of Pure and Industrial Chemistry is dedicated to providing quality higher education and research to develop internationally competitive

chemists with academic excellence and good leadership attributes for the benefit of humanity.

#### **Programme Objectives**

- To advance knowledge in Pure and Industrial Chemistry for skills and expertise required for self-reliance and gainful employment.
- To educate graduate students on the importance of critical thinking in research for development of their immediate communities and the nation, and

#### **4. Process of Curriculum Design**

- a) Explain the process of development of the curriculum for the Postgraduate programme of the University.*

The curriculum process is initiated at the Departmental Board, goes to the Faculty Board for review, from there to the Senate Committee on Academic and Professional Programmes (SCAPP) for review and compliance and finally to Senate for approval.

- b) Confirm the extent to which the Postgraduate programme curriculum in use has approximated the Benchmark Minimum Academic Standards (BMAS) for the Postgraduate programme. Please state the main differences.*

The postgraduate programme curriculum in Pure and Industrial Chemistry took into consideration the BMAS stipulated by NUC. The main difference is that, the programme encourages multidisciplinary and transdisciplinary training with a view to preparing the graduates for industry work life.

## 5. Student Admission, Retention and Graduation Policy.

*a) Describe the admission, retention and graduation policy for the programme.*

### **MSc in Pure and Industrial Chemistry**

- (i) Full-time students will take four taught courses and a seminar course in the first semester and three taught courses and a research project in the second semester.
- (ii) Part-time students will take five taught courses in their first year of registration, i.e. three for 1<sup>st</sup> semester and two for 2<sup>nd</sup> semester. In the second year of registration, two taught courses and a seminar course will be taken in the first semester. A taught course and a research project will be taken in the second semester.
- (iii) Each of the taught courses and seminar carries three (3) units while Research Project carries six (6) units

### **CONTINUATION REQUIREMENTS**

- i). A graduate student is expected to pass all taught courses with a minimum grade of “C”
- ii). A student who fails a course shall register for it again at the next available opportunity. A graduate student will not register for a course more than twice.

*b) Describe the grading system and the policy on students' probation, withdrawal and expulsion.*

- (i) Failure of a course twice amounts to automatic fail out/withdrawal from the programme.
- (ii). The maximum pass grade for a REPEAT COURSE shall be “C”.
- (iii) At the end of the First-Year course work, the student should have a cumulative grade point average of NOT less than 2.75. A student who does not meet the minimum CGPA at the end of the First-Year shall be asked to withdraw from the programme
- (iv) No student shall proceed to the thesis without a cumulative grade average of 3.00 or above. A student who has exhausted both opportunities for all required course without attaining a CGPA of 3.00 shall be asked to withdraw

### **GRADUATION POLICY**

The award of the degree is subject to passing the following as approved by Senate;

- (a) Written examination in the taught courses
- (b) Seminars as assessed by the Department
- (c) Oral examination on the subject of the thesis/dissertation and related subjects.



**6. Enrolment and Graduation Data**

a) *Using the Table below, please provide the enrolment statistics for the last five sessions.*

YEAR	ENROLMENT						TOTAL NO. AT GRADUATION
	FULL-TIME		PART-TIME		NATIONALIITIES		
	Male	Female	Male	Female	Nigerian	Non-Nigerian	
2015	17	16			33		33
2014	16	16			32		32
2013	19	9			28		28
2012							
2011							

b) *Using the Table below, please provide the graduation statistics for the last five sessions.*

YEAR	GRADUATE						TOTAL NO. AT GRADUATION
	FULL-TIME		PART-TIME		NATIONALIITIES		
	Male	Female	Male	Female	Nigerian	Non-Nigerian	
2016	3	2			5		5
2015	7	5			12		12
2014	4	5			9		9
2013							
2012							

## 7. Students' Workload

*Please complete the table below in order to show the work load of students in the programme. Arrange per semester, if possible.*

Grouping	Course Codes	Course Titles	Pre-requisite	Credit Units	Contact Hours Per Week			Total Hours per Week
					Lecture	Tutorial	Practical	
a) GENERAL	For example MBA 50X	Computer Literacy	Nil	2	2	1	1	4
b) Core/Compulsory Courses	CHM 830.1	Seminar	NIL	3	3	NIL	1	4
	CHM 835.1	Advanced Analytical Chemistry	NIL	3	3	NIL	1	4
	CHM 841.1	Advanced Physical Chemistry	NIL	3	3	NIL	1	4
	CHM 851.1	Advanced Inorganic Chemistry	NIL	3	3	NIL	1	4
	CHM 861.1	Advanced Organic Chemistry	NIL	3	3	NIL	1	4
c) Elective/Optional Courses	CHM 833.2	Waste Management	NIL	3	3	NIL	1	4
	CHM 836.2	Advanced Environmental Chemistry	NIL	3	3	NIL	1	4

	CHM 837.2	Spectroscopic Methods for Analytical Chemistry	NIL	3	3	NIL	1	4
	CHM 838.2	Advanced Analytical Instrumentation	NIL	3	3	NIL	1	4
	CHM 839.2	Chemical Toxicology						
	CHM 845.2	Advanced Theoretical Chemistry	NIL	3	3	NIL	1	4
	CHM 847.2	Advanced Statistical Thermodynamics	NIL	3	3	NIL	1	4
	CHM 849.2	Molecular Photophysics and Photochemistry	NIL	3	3	NIL	1	4
	CHM 862.2	Applied Spectroscopy in Organic Chemistry	NIL	3	3	NIL	1	4
	CHM 863.2	Organic Synthesis	NIL	3	3	NIL	1	4
	CHM 865.2	Medicinal Chemistry	NIL	3	3	NIL	1	4

	CHM 866.2	Advanced Pharmaceutical Chemistry	NIL	3	3	NIL	1	4
	CHM 867.2	Natural Product Chemistry	NIL	3	3	NIL	1	4
	ICH 871.2	Advanced Industrial Chemical Processes and Techniques	NIL	3	3	NIL	1	4
	ICH 873.2	Industrial Powder Technology	NIL	3	3	NIL	1	4
	ICH 874.2	Advanced Mineral Processing and Chemical Metallurgy	NIL	3	3	NIL	1	4
	ICH 875.2	Polymer Science	NIL	3	3	NIL	1	4
	ICH 876.2	Industrial Application of Electrochemistry & Corrosion	NIL	3	3	NIL	1	4
	ICH 877.2	Surface Reaction and Catalysis	NIL	3	3	NIL	1	4

	ICH 879.2	Wood, Pulp and Paper Chemistry	NIL	3	3	NIL	1	4
	ICH 881.2	Surface Coatings	NIL	3	3	NIL	1	4
	ICH 883.2	Petroleum Chemistry	NIL	3	3	NIL	1	4
	ICH 884.2	Petrochemicals	NIL	3	3	NIL	1	4
d) Thesis/dissertation Research/Project	CHM 890.2	Research Project	NIL	6	NIL	NIL	6	6

## 8. Examination

### i) State the methods of course evaluation, including the external examination system

Students, duly, registered for a course are evaluated via Examinations, Continuous Assessments and Seminars during and at the end of the coursework. An external examiner is also invited for the *viva vocé* (oral examination) of students' theses.

### ii) How long after examinations are results released?

Not more than three (3) weeks from date of completion of main examinations.

### iii) Appraise the standard of examination based on the:

#### (a) Coverage of the syllabus content;

Lecturers endeavour to complete course syllabus prior to examinations, which gives room for variety of questions required to assess acquired

knowledge by students as exhibited by our graduates in the subject areas. The content of the syllabus has always been, reasonably, covered.

**(b) Quality of students' answers to the various question;**

There is high quality of students answers to the various examination questions with a normal Poisson distribution curve in terms of course grades that is often skewed towards the higher grades. Over the years, independent reports by our external examiners have attested to the quality of our graduates with respect to research projects and answers to questions in the overall knowledge of pure and industrial chemistry, when compared with similar departments across Nigeria. The quality of students' answers to examination questions has been adequate as attested to by various external examiners to the programme.

**(c) Quality of practical work, workshops, training courses, continuous assessment and degree projects;**

Our laboratories are reasonably equipped while, continuous assessment (CA) is done for all courses and constitutes 30% of total score of main examinations. This CA enables lecturers to pre-assess students' course assimilation level before the main examinations. Students are encouraged to attend training courses, workshops and short industrial attachments but, for students who are unable to secure spaces outside, provisions are made for them to meet these requirements in-house. As a matter of policy, postgraduate training in the University of Port Harcourt makes it mandatory for every masters' student attend, at least, one conference and publish, at least, one journal article before such a student can be allowed to defend their thesis at the School of Graduate Studies for graduation. Our students have done, extremely, well in their projects since most lecturers have published the results of the projects in reputable journals. Some of our students have also received commendations from external examiners. Practicals, continuous assessments and research projects are

taken with diligence as they form part of the requirements for award of MSc degrees.

**(d) Students' readiness for the level of manpower he/she is being trained for;**

Graduate training at the Department is industry-driven as is observable in our core and elective courses. This evaluation is based on our assessment of the students' ability to take on challenges commensurate with high level manpower demands as well as feedback received from various employers. They are tasked in several areas including the degree research project work, which is an independent scientific investigation, seminar preparations and presentations that, task them on how to organize and pass on knowledge to others. Also, industrial internship introduces them to work habits and ethics relevant for leading a successful work lifestyle. All these aspects emphasize critical thinking and problem solving. Generally, the structure of our postgraduate programme emphasises the manpower needs they are being trained for based on feedback received from their places of internship and various employers.

**(e) External examination or moderation scheme;**

Each academic session, the Department Board nominates an external examiner of the rank of professor in the various subject matter areas and approved by the Senate of the University for the masters' programme for external moderation of degree examinations and are invited to moderate and assess the masters' students ready for defence. Reports on these exercises have, generally, been positive. Overall, the postgraduate has an established external moderation scheme for degree examinations in which experts in the various disciplines are invited each year to moderate and assess the postgraduate programme. The exit reports on these visits have, generally, been favourable.



**iv) State how matters arising from examinations are handled**

**REVIEW OF EXAMINATION SCRIPTS OF AGGRIEVED STUDENTS**

- (i) Students are entitled to see their marked examination scripts if they wish.
- (ii) Any student who feels aggrieved about the grading of a course examination may petition his/her Head of Department (HOD) in the first instance. The HOD shall refer the petition to the Dean of the Faculty who shall make necessary arrangements for re-assessment and presentation of the scores to the Faculty Board for determination. A petition must be submitted not later than four weeks after approval of results by the Faculty of Science Board.
- (iii) No group appeal (petition) by candidates involved in the examination in question (or any other group of persons) are entertained.

**EXAMINATION MALPRACTICES**

Various forms of examination malpractices are recognised by the University. These include the following.

- (i) Cheating within an Examination Hall/Room

Many forms of cheating are in this category, e.g. copying from one another, bringing into examination hall/room prepared (extra-examination) materials, oral/written communication amongst students, impersonation, non-submission of answer scripts, refusal to stop writing at the end (within ½ min.) of the examination, illegal removal of answer scripts from the examination hall/room.

(ii) Cheating Outside the Examination Hall/Room

The offences are numerous and they include:

- (a) Plagiarism (i.e. using another person's work without appropriate acknowledgment both in the text and in the references). This is of particular concern in writing of theses/dissertations.
- (b) Colluding with a member of staff to modify (alter) questions, scores/grades, etc.
- (c) Colluding with a member of staff to submit a new prepared answer scripts as a substitute for the original script.
- (d) Soliciting help after an examination, etc.

Students found to have committed any of the aforementioned examination offences are made to face the disciplinary panel.

**9. Research/Project**

- a) *State the Research/Project policy, methodology and thrust of the programme*  
*Research is an integral part of academic work carried out at the graduate level in the Department of Pure and Industrial Chemistry. This is aimed at advancing scientific and technological knowledge in Chemistry towards sustainable national development.*
- b) *List titles of postgraduate projects/theses/dissertations in the programme in the last three years.*

### A Selection of Graduate Students' Research Projects (2014 – 2015)

S/N	SUBJECT TITLE	REGISTRATION NUMBERS/ STUDENTS' NAMES	SUPERVISORS' NAMES
<b>2015/2016 Session</b>			
1	BUCK GEOCHEMICAL CHARACTERISTICS OF BITUMEN SAMPLES FROM FOUR DEPOSITS IN ONDO STATE NIGERIA	NDUBUKA OGECHUKWU CYNTHIA G2013/M.Sc/CHM/FT/5 85	PROF. L. C. OSUJI DR. M. C. ONJAKE
2.	PRECIPITATION OF HEAVY ORGANICS FROM CRUDE OIL USING RELATIVELY POLAR LOW MOLECULAR WEIGHT ORGANIC SOLVENTS	ENYINDAH LAWRENCE G2012/M.Sc/CHM/FT/5 57	DR. S. E. OFODILE DR. U. J. CHUKWU
3.	KINETIC STUDY OF PRECIPITATION OF HEAVY ORGANICS FROM CRUDE OIL USING BINARY MIXTURES OF n-ALKANES	INYAMAH CHINEDU GODSON G2013/M.Sc/CHM/FT/5 58	DR. (MRS.) M. U. IBEZIM EZEANI DR. S. E. OFODILE
4.	ANALYSIS OF PETROLEUM HYDROCARBON IN CRUDE OIL-POLLUTED SOILS USING FINGERPRINTING TECHNIQUE	NNADI OGOCHUKWU VIVIAN G2013/M.Sc/CHM/FT/6 09	PROF. L. C. OSUJI DR. O. ACHUGASIM
5	THE EFFECT OF FUNGAL GROWTH ON THE QUALITY PARAMETERS OF COCONUT (cocos nucifera) SEED OIL	NWUCHE        CHETA UTULA G2013/M.Sc/CHM/FT/6 15	PROF. OVIJ. ABAYEH PROF. GLORIA U.N OBUZOR
S/N	SUBJECT TITLE	REGISTRATION NUMBERS/ STUDENTS' NAMES	SUPERVISORS' NAMES
<b>2014/2015 Session</b>			
1	SYNTHESIS CHARACTERIZATION AND CORROSION INHIBITION OF 4-(C3, 4-DIMETHOXYBENZYLIDENE) AMINO) 1,5, -DIMETHYL-2-PHENYL-1H PYRAZOL -3 (2H) – ONE MILD STEEL IN ACIDIC MEDIA	CHUKWUIKE, VITALS IKENNA G2011/MSC/CHM/FT/4 86	PROF. NICK OFORKA
2	DETERMINATION AND SPECIATION OF TRACE HEAVY METAL CONCENTRATION IN CANNED FISH IMPORTED INTO NIGERIA	EKWERE IFIOK OKON G2011/MSC/CHM/FT/4 91	PROF. M. HORSFALL

3	PRECIPITATION OF HEAVY ORGANICS FROM CRUDE OIL USING BINARY MIXTURES OF N-ALKANE ORGANIC SOLVENTS (C5,C6,C7)	UDOURIOH GODWIN AUGUSTINE G2011/MSC/CHM/FT/498	DR. S.E. OFODILE
4	DETERMINATION OF THE PHYSICO-CHEMICAL CONCENTRATION LEVELS OF FLOOD-WATER AND SEDIMENTS IN SELECTED AREAS OF NIGERIA DELTA, NIGERIA.	NTI CHIDINMA GEORGINA G2011/MSC/CHM/FT/500	DR. CHARLES OSU
5	OPTIMIZATION OF BIOCHEMICAL PRODUCTION FROM SPECIES OF COCOYAM (COLOCASIA ESCULENTA AND XANTHOSOMA SAGITTOFOLIUM) SWEET POTATO (IPOMEA BATATAS LAM) AND ELEPHANT GRASS (PENNISETUM PURPUREM SCHUMACH)	EZE CHIZOMA NWAKWGO G2011/MSC/CHM/FT/484	PROF. R.E. OGALI
6	ANALYSIS AND COMPARATIVE STUDIES ON THE DEMULSIFYING STRENGTH OF JATROPHA	AKWASI OGECHI G2008/MSC/CHM/FT/402	DR. (MRS) M. IBEZIM-EZEANI
7	THE EFFECT OF IRON CATALYST ON THE THERMAL AND OXIDATIVE PROPERTIES OF LUBRICATING OIL	IKOKO IFIEMI LEONARDSON G2011/MSC/CHM/FT/493	DR. I.P. OKOYE PROF. LEO. C. OSUJI
8	HYDROCARBON FINGERPRINTS IN STREAM AND BROEHOLE WATER IN ELEME COMMUNITY, RIVERS STATE.	OBASI, CHISOM G2010/MSC/CHM/FT/472	PROF. LEO. C. OSUJI
9	EFFECTS OF SPOILAGE AND PRESERVATION METHODS ON SOME QUALITY CHARACTERISTICS OF AFRICAN PEAR (DACRYODES EDULIS) FRUIT PULP AND SEED OIL	UCHENDU IHEDINACHI JOY G2011/MSC/CHM/FT/487	DR. S.E. OFODILE
10	PHOTOCHEMICAL SCREENING MICRONUTRIENTS AND FATTY ACID COMPOSITION OF IXORA COCCINEA LEAF	UDO ANIETIE ITA G2011/MSC/CHM/FT/490	DR. (MRS) G.U. OBUZOR
11	SYNTHESIS CHARACTERISATION AND ANTIMICROBIAL ANALYSIS OF COPPER AND CERIUM COMPLEXES OF N-(4-DIETHYL-AMINO)BENZYLIDENE PROPYLAMINE)	BRISIBEA DOUBRA G2011/MSC/CHM/FT/506	PROF. NICK OFORKA
12	STUDY OF HYDROCARBON DISTRIBUTION IN WATER AND SEDIMENT SAMPLES OF ALE TO STREAM BY FINGERPRINTING TECHNIQUE	EKPO UDEME EKPONIMO G2011/MSC/CHM/FT/496	PROF. LEO. C. OSUJI

S/N	SUBJECT TITLE	REGISTRATION NUMBERS/ STUDENTS' NAMES	SUPERVISORS' NAMES
<b>2013/2014 Session</b>			
1	DETERMINATION OF THE PHYSIOCHEMICAL CONCENTRATION LEVELS OF FLOOD WATER AND SEDIMENTS IN SELECTED AREAS OF NIGER DELTA, NIGERIA	NTI, CHIDIMA GEORGINA G2011/M.SC/FT/500	DR. CHARLES OSU
2	HYDROCARBON FINGER PRINTS IN STREAM AND BORE HOLE WATER IN ELEME COMMUNITY, RIVERS STATE.	OBASI, CHISOM G2011/M.SC/FT/472	PROF. LEO. C. OSUNJI
3	A COMPARATIVE STUDY OF THE CORROSIVE INHIBITION EFFICIENCIES OF THE CONSTITUENTS OF DIFFERENTIAL EXTRACTS OF <i>Nypa Fruticans</i> wurmb LEAVES ON MILD STEEL IN SULPHURIC ACIS SOLUTION.	NWAUGBO, CHINENYE MICHEAL G2011/M.SC/FT/507	PROF. N. C. OFORKA DR. A. O. JAMES
4	EVALUTION OF PETROLUEM HYDROCARBONS IN SURFACE WATER SEDIMENTS AND GROUND WATER ACCUMULATIONS IN ELEME COMMUNITY	ONWUARU, WILSON G2011/M.SC/FT/499	PROF. LEO. C. OSUJI
5	PHYTOCHEMICAL SCREENING AND ANTIMICROBIAL ACTIVITY OF THE FRUIT OF <i>Buchholia Coriacea</i> Engler (CAPPARACEAE)	NWACHUKWU, KELECHI IHUOMA G2011/M.SC/FT/499	PROF. C.M OJINNAKA
6	HYDROCARBON FINGERPRINTS IN STEEEAM AND BOREHOLE WATER OF ELEME COMMUNITY	OBASI CHISOM G2011/M.SC/FT/472	DR. L. C. OSUJI
7	INFRA –RED, SOTAE PHYTOCHEMICAL SCREENING, MICRONUTRIENTS AND FATTY AND COMPOSITION OF <i>IXORA COCCINEA</i>	UDO, ANIETIE ITA G2011/M.SC/FT/490	DR, (MRS)M G. UBUZOR
8	PRODUCTION OF BIODISEL USING KOH-MODIFIED BENTONITE CLAY MINERAL VIA TRANSESTERSRIFICATION	OJI EKWELA G2011/M.SC/FT/468	DR, (MRS)M G. UBUZOR

9	HYDROCARBON DISTRIBUTION IN ALETO STREAM AND SEDIMENT BY FINGERPRINTING TECHNIQUE	EKPO UDEME EKPONOIMO G2011/M.SC/FT/495	DR. L.C. OSUJI
---	---	--	----------------

- c) *Complete the table below to display the cluster of students projects, their relevance to national development or special areas of national interest, and confirm adoption of findings/recommendations, if any.*

<b>Cluster of Research Titles</b>	<b>Relevance to National Development/Thrust</b>	<b>Utilization of Research Findings</b>
Polymer Chemistry and Technology	Source of self-employment or paid employment, and national income; contribute to gross domestic product (GDP)	Promote industrialization; Job and wealth creation; Foreign exchange earnings
Petrochemistry and Petrochemicals	Source of self-employment or paid employment; contribute to gross domestic product (GDP)	Promote industrialization; Job and wealth creation; Foreign exchange earnings
Mineral Processing and Chemical Metallurgy	Source of self-employment or paid employment; contribute to gross domestic product (GDP)	Promote industrialization; Job and wealth creation; Foreign exchange earnings
Oilfield Chemistry	Source of self-employment or paid employment; contribute to gross domestic product (GDP); produce eco-friendly oilfield chemicals to support oil and gas drilling muds	Promote industrialization; Job and wealth creation; Foreign exchange earnings

- d) *i. List the publications resulting from this programme in the last three years.  
ii. List the publications from Postgraduate Thesis/Dissertation*

## C. STAFFING

### 1. Academic Staff

*Personal Data of Staff Teaching Courses of all Postgraduate Programmes. (Please attach the curriculum vitae and copy of letter of appointment of each staff)*

S/N	Name of Staff	Rank/Designation, salary scale, date of first appointment/ Promotion, and nationality	Full Time or Part – Time	Qualifications, dates obtained and specialization, membership of Professional association and Publications	Post qualification work/teaching experience and dates, post held and the organization	Courses presently being taught	Teaching load/lecture hours/week	C
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1	Akaranta .O.	Professor CONUASS 7/10 23 <sup>rd</sup> April, 1982	F/T	PhD 1993 M.Sc. 1982 B.Sc. 1978 Over 35 Publications	Process Operator Port Harcourt Refinery 1979– 1980 Lecturer, 1982 till date	ICH 270 ICH 474		D D D
2	Otaigbe, J. O. E.	Professor CONUASS 7/10 29 <sup>th</sup> December, 1980	F/T	PhD 1984 B.Sc (Hons) 1979 CChem, Member: Royal Society of Chemistry (RSC) and Polymer Institute of Nigeria Publication 27	Lecturer 1980 till date	ICH 270.2 ICH 374.1 ICH 474.1 ICH 482.2		M S C M M F M F C
3	Horsfall, M (Jnr)	Professor CONUASS 7/10 17 <sup>th</sup> July, 1993	F/T	PhD 1992 M.Sc. 1989 B.Sc 1986 Nigerian Environmental Society, Tribology Society of Nigeria, American Chemical Society and New York Academy of Sciences 104 publications and 10 Books	Lecturer 1992 till date	CHM 235.1 CHM 335.1 CHM 435.1 CHM 436.1 ICH 236.2		D d
4	Ogali, R. E.	Professor CONUASS 7/10 1 <sup>st</sup> August, 1978	F/T	PhD 1989 MPhil 1984 B.Sc 1977 Member, CSN 1977 FICCON Over 25 Publications	Lecturer 1978 till date	CHM 260.1 CHM 362.1 CHM 462.2		D D

5	Osuji, L. C.	Professor CONUASS 7/8 June, 1999	F/T	PhD 1998 M.Sc 1993 PGD (Pet. Engr) 1992 B.Sc (Hons) 1986 Over 35 Publications	Lecturer 1999 till date	ICH 480.1 GES 104.1 CHM 235.1 CHM 436.2 ICH 480.2		H
---	--------------	--	-----	---	-------------------------	---	--	---



6	Obuzor, G. U. (Mrs)	Professor CONUASS 7/7 June, 1982	F/T	PhD 1998 M.Sc 1989 B.Sc 1979 FCSN, MICCON, American Wine Society and American Chemical Society. Over Publications 30	Lecturer 1982 till date	ICH 374.1 CHM 261.2 CHM 365.2		
	<b>Reader</b>							
7	Okoye, I. P.	Reader CONUASS 6/6 July, 2004	F/T	PhD 1989 M.Sc 1986 B.Sc 1983	Research Fellow (1990 – 1995) Lecturer/Research Fellow University of New Castle (UK) 1995 – 1998 Senior Technologist (GSK) 1999 – 2002 (UK) Lecturer 2004 till date	CHM 340.1 CHM 260.1 CHM 480.1 CHM480.2		
	<b>Senior Lecturers</b>							
8	Okorosaye- Orubite, K. (Mrs)	Senior Lecturer 5/13 December, 2013	F/T	PhD 2003 M.Sc 1994 B.Sc 1982	Lecturer, RSUST, PH 1996 – 2013, Lecturer UniPort 2013 till date	CHM250.1 ICH 481.2 CHM130.1		

9	James, A. O. (Mrs)	Senior Lecturer CONUASS 5/4 14 <sup>th</sup> November, 2005	F/T	PhD 2007 M.Sc. 2002 M. Sc 1997 Member CSN & ICCON, 40 Publication	Lecturer Olabisi Onabajo University Ago-Iwoye 1997 – 2002. Lecturer University of Port Harcourt 2005 till date	CHM 130.1 CHM 131.2 CHM 250.1 CHM 350.1 ICH 477.1 ICH 481.2		
10	Monago, K. O.	Senior Lecturer CONUASS 5/12 July, 1981	FT	PhD 1997 M.Sc 1985 B.Sc 1980 Diploma Chemical Engineering 1983. Over 20 Publications	Calabar Central Co. Ltd 1981 Lecturer 1981 till date	ICH 236.2 CHM 240.2 ICH 371.1 ICH 476.1 ICH 471.2		

11	Ibezim-Ezeani, M. U.	Senior Lecturer CONUASS 5/3 14 <sup>th</sup> November, 2005	F/T	PhD 2007 M.Sc 2003 B.Sc 1988 FCSN 2016 MICCON 2009 Publication 16	Lecturer, 2005 till date	CHM 240.2 CHM 340.1 CHM 349.1 CHM 442.1 ICH 472.1		
12	Osu, C. I.	Snr. Lecturer CONUASS 5/3 13 <sup>th</sup> December, 2007	F/T	Ph.D 2010 M.Sc 2006 B.Sc 2000 Member CSN Publication 35	Lecturer, Abia State College of Education & Technical, Arochukwu Lecturer, University of Port Harcourt 2007 till date	CHM 130.1 CHM 131.2 CHM235.1 CHM335.1 CHM436.1		
	<b>Lecturer 1</b>							
13	Achugasim, O.	Lecturer I CONUASS 4/3 13 <sup>th</sup> December, 2007	F/T	PhD. 2012 M.Sc 2006 B.Sc 2001	Lecturer University of Port Harcourt 2007 till date	CHM 132.2 CHM 260.1 CHM 261.2 CHM 365.1		
14	Chukwu, U. J.	Lecturer I CONUASS 4/3 13 <sup>th</sup> December, 2007	F/T	PhD 2011 M.Sc 2006 B.Sc 1999 Member CSN and ICCON, 10 Publication	Lecturer, University of Port Harcourt 2007 till date	CHM 130.1 CHM131.2 CHM250.1 CHM350.1 CHM452.2		
15	Ngobiri, N.	Lecturer I CONUASS 4/3 13 <sup>th</sup> December, 2007	F/T	PhD 2014 M.Sc 2006 B.Sc 1998	Lecturer, University of Port Harcourt 2007 till date	CHM 130.1 CHM131.2 CHM 250.1 CHM350.1 ICH452.2 ICH481.2 CHM 477.2		

16	Obi, C.	Lecturer I CONUASS 4/3 13 <sup>th</sup> December, 2007	F/T	PhD 2012 M.Sc 2008 B.Sc 2000 Member CSN, 34 Publication	Lecturer, University of Port Harcourt 2007 till date	CHM 240.2 CHM 340.1 CHM 349.1 CHM 442.1 CHM 472.1		
17	Onojake, M. C.	Lecturer I CONUASS 4/3 13 <sup>th</sup> December, 2007	F/T	PhD 2013 M.Sc 2005 B. Sc 1997 Publication 25, member of CSN, Research Associate Centre for Marine Polletin Monitoring & Sea Food Safety	Lecturer, University of Port Harcourt 2007 till date	CHM 132.2 CHM 260.1 CHM 362.1 ICH 480.1 CHM 462.2 ICH 480.2		
18	Onyema, O. M	Lecturer I CONUASS 4/3 13 <sup>th</sup> December, 2007	F/T	PhD 2013 M.Sc 2006 B.Sc 2001	Lecturer, Uniport till date	CHM 130.1 CHM 132.2 CHM 365.1 ICH 480.1 ICH 480.2		
19	Orij, O. G.	Lecturer I CONUASS 4/3 13 <sup>th</sup> January, 2008	F/T	PhD 2015 M.Sc 1994 BTECH 1989 Member, ACS, PIN, CSN and ICCON	Lecturer, Uniport 2008 till date	ICH 270.2 ICH 374.1 ICH 478.1 ICH 474.1		
20	Iwuoha, G.	Lecturer I CONUASS 3/6 13 <sup>th</sup> December, 2007	F/T	PhD 2012 M.Sc 2006 B.Sc 2001 Member WASAT and CSN	Lecturer, Uniport 2007 till date	CHM 130.1 CHM 131.2 CHM 235.1 CHM335.1 CHM 436.1		

ii) **Staff Appraisal:** Appraise the entire academic staff of the Programme based on;

(a) **Adequacy in number, qualification and experience (State average staff to student ratio)**

There are twenty (20) academic staff for postgraduate training in the Department who possess their doctorate degrees. Out of these there are, 6 Professors, 1 Associate Professor, 5 Senior Lecturers and 8 Lecturer 1 cadre. The average staff to student ratio for postgraduate studies including masters' and doctorate students is about 1:2.

(b) **Effectiveness of Lecturers**

There is a high level of commitment by academic staff in the discharge of their duties. In the course of the semester, students are assessed via assignments and tests as part of their continuous assessment (CA), which makes up to 30% of the total examination score with the balance of 70% coming from the main examination. They also grade students seminars and supervise projects.

(c) **Professional achievements (Local and International)**

Most academic staff have made significant progress in their respective areas of specialization. Many have served as external examiners in various Nigerian Universities, Consultants to various industrial establishments, current and or past presidents, fellows or members of professional associations; editors of journals and have either attracted outside research funds or been awarded foreign fellowships. Generally, professional achievement of each staff include articles in reputable local and international journals and a majority of them are members of local and international societies. At the International Conference of Chemical Society of Nigeria in 2016, the Department won the first and second position (prize) of product exhibition and also the first and second poster prize of IUPAC during the same conference. The President of Chemical Society of Nigeria (CSN), Chairman, Local Organising Committee (LOC) and Welfare Committee Chairman of the 2016 Conference of (CSN) are from this Department.

(d) **Past and on-going research efforts in the last three years**

Staff of the department are involved in research covering oilfield chemistry, modification of polysaccharides, green corrosion inhibitors, scale removal using chemicals, and so on.

(e) **Major research output of the programme in the last three years.**

(f) **List of academic publications in reputable journals in the last three sessions.**

**iii) Thesis/dissertation Supervision**

List below the names of the Postgraduate thesis/dissertation supervisors, the number of students assigned in the current session, as well as the total assigned in the last three years.

<b>Names of Staff by Category</b>	<b>Number of Students Currently being Supervised</b>	<b>Total Number of Students Supervised in Last 3 Years</b>
<b>Professor</b>		
1. Akaranta, O.		
2. Otaigbe, J.O.E.		
3. Horsfall, M. (Jnr.)		1
4. Ogali, R.E.		1
5. Osuji, L.C.	2	7
6. Obuzor, G.U. (HoD)	1	3
7. Ojjinaka, C.M.		1
8. Oforka, N.		3
9. Abayeh, O.I.	1	1
<b>Reader/Associate Prof.</b>		
1. Okoye, I.P.		1
<b>Senior Lecturer</b>		
1. Okorosaye-Orubite, K.		

2. James, A.O.		1
3. Monago, K.O.		
4. Ibezim-Ezeani, M.U.	1	1
5. Osu, C.I.		2
6. Ofodile, S.E.	2	2
<b>Lecturer 1</b>		
1. Achugasim, O.	1	1
2. Chukwu, U.J.	1	1
3. Ngobiri, N.		
4. Obi, C.		
5. Onojake, M.C.	1	1
6. Onyema, O.M.		
7. Orijji, O.G.		
8. Iwuoha, G.		

## 2 Non-Academic Staff

### a) Senior Technical Staff

*Complete the table below in respect of the Senior Technical Staff for the programme.*

S/N	Name	Rank/Designation and Date of First Appointment	Qualifications and Dates obtained	Post-Qualification Work Experience
1	Okorika, Z. G.	Chief Technologist 22 <sup>nd</sup> July 1977	BSSG, HD, HND	
2	Chukwulobe, U. C.	Chief Technologist 3 <sup>rd</sup> June, 1985	G&G II Telecoms 1975, G&G Physics Lab. Tech. 1978, NIST DIP. 1978, IST DIP, 1978, ANIST 1979, AIST 1980, AMSERT 1980, T. Eng. CE1 1981	
3	Johnson, Y. O.	Chief Technologist 13 <sup>th</sup> April, 1981	HND 1979, ANIST 1986, Reg. no. (A. 1168)	
4	Namiesimagha, F. L.	Chief Technologist	Final Dip. (NIST)-1986, PGD 2009, ANIST Reg. no. A.1312	
5	Okike, N. E.	Chief Technologist 4 <sup>th</sup> May, 1981	HND 1978, B. Eng. 1992 ANIST 1987 Reg. no. (A.1231)	
6	Wosu, S. N.	Chief Technologist 14 <sup>th</sup> Jan. 1987	HND 1983, B. Eng. 1993, ANIST 2005 Reg.no. (A.4224)	
7	Okon, E. E.	Chief Technologist 15 <sup>th</sup> Feb. 1982	HND 1992, ANIST Reg. no. A.3551	
8	Ijente, P. (Mrs)	Chief Technologist 13 <sup>th</sup> April, 1987	Final Dip. 1990 ANIST	



9	Okele, C.	Assistant Chief Technologist 26 <sup>th</sup> May, 1986	Final Dip. 1998 ANIST Reg. No. 4225 (2005)	
10	Ojenamah, U.	Technologist I 31 <sup>st</sup> Jan. 2013	(NISLT) HND 2009, HND SLT 2007 2006	
11	Amacha, M.	Technologist II 31 <sup>st</sup> Jan. 2013	HND 2005, NISLT 2013	
12	Onobun, J. D.	Technologist II 25 <sup>th</sup> Nov. 2016	ND 2001, HND SLT 2006, PGD (Chem.) 2015	
13	Uchendu, .S. C.	Technologist II 17 <sup>th</sup> June, 2013	WAEC 2001, ND SLT (Chem/Biochem) 2004, HND SLT (Chem/Biochem) 2007, PGD Industrial Chem. 2009	
14	Okor, .C.M.	Technologist II, 12 <sup>th</sup> February 1982	WAEC 2002, HND 2009, NISLT 2009	

**b) Senior Administrative Staff**

*Complete the table below in respect of the Senior Administrative Staff for the programme.*

S/ N	Name	Rank/Designation and Date of First Appointment	Qualifications and Dates obtained	Post- Qualification Work Experience	Duties Performed
1	Obodagu, E.	Chief Secretarial Assist. I GL 8/15 16 <sup>th</sup> July, 1982	NCE, Pitman (50wpm) 1980 GCE1990	Secretarial work	Record minutes and organise meetings among others
2	Owhondah, T.N.	Administrative Officer Contiss 8/4 19 <sup>th</sup> Sept. 2011	B.Sc 2007	Administrative work	Coordinate office activities, record minutes and organise meetings among others

3	Okoro, N.R.	Confidential Secretary I Contiss 7/4 22 <sup>nd</sup> Feb. 2007	WAEC 2005, Dip. in computer 2002, & Advanced NABTEB 2012 &2013	Secretary duties	Record minutes and organise meetings among others
---	-------------	---	---	------------------	---

**c) Junior Staff**

Complete the table below in respect of the Junior Staff for the programme

<b>S/ N</b>	<b>Name</b>	<b>Rank/Designation and Date of First Appointment</b>	<b>Qualifications, and Dates obtained</b>	<b>Post- Qualification Work Experience</b>	<b>Duties Performed</b>
1	Enyindah, R.	Computer operator II Contiss 4/4 17 <sup>th</sup> December, 2013	SSCE 2008 & NECO 2012, Dip. in computer appreciation 2009	Computer Operator	Typing and record keeping among others
2	Chukwu, R.	Clerical Assistant	FSLC 1973, WAEC 1981	Clerical Duties	Record memos among other
3	Ogbaka, V.	Cleaner/ Messenger Contiss 1/15 April, 2012	FSLC 1970	Cleaner/ Messenger	Move files, memos, perform sanitation among others
4	Wordu, M	Cleaner/ Messenger Contiss 1/15 21 <sup>st</sup> Feb. 2012	FSLC 1991, SSCE 1999	Cleaner/ Messenger	Move files, memos, perform sanitation among others

**3. Staff Development Programme**

Several staff of the Department have benefitted from the University Staff Development Scheme where staff are either fully or partially supported to get their terminal degrees, attend short courses and other trainings. The University also provides capacity development by regularly sponsoring deserving staff to attend local and international conferences, seminars and workshops.

## **D. PHYSICAL FACILITIES RELEVANT TO PROGRAMME**

### **1. Academic Facilities**

- a)** *Comment on the availability and adequacy of lecture theatres, class rooms, seminar rooms and others.*

<b>Type of Facility</b>	<b>Size (in square metres)</b>	<b>Number of Students</b>
Lecture theatre	100	100
Class room	50	50
Assembly/Exams Halls	200	150
Library	45	20

- b)** *Comment on the availability and adequacy of laboratories, studios and clinics/wards for the programme.*

<b>Type of Facility</b>	<b>Size</b>	<b>Number of Students</b>
Laboratory	50	50

- c)** *Comments on the availability and adequacy of Equipment and furnishing of facilities*

<b>Type of Facility</b>	<b>Size</b>	<b>Number of Students</b>

## 2. Office Accommodation

- a) *Comment on the office accommodation available for academic staff, stating the size of accommodation, list of furniture items and how many lecturers share the rooms.*
- b) *Complete the table indicating the disposition of offices for staff.*

<b>RANK</b>	<b>SINGLE OCCUPANCY</b>	<b>SHARED BY 2</b>	<b>SHARED BY 3</b>	<b>SHARED BY 4 OR MORE</b>	<b>TOTAL OFFICES</b>
<b>Professors</b>	3	3			6
<b>Associate Prof/Readers</b>		1			1
<b>Senior Lecturers</b>		3			3
<b>Lecturer 1</b>		4			4

## 3. Appraisal of Facilities

*Appraise other existing facilities in terms of quality and quantity for the current and projected enrolment period e.g., PG common room and offices.*

The Department has acquired substantial usable laboratory equipment as indicated in the table below:

<b>Item №</b>	<b>Existing facility</b>	<b>Quality</b>	<b>Quantity</b>
1	Industrial Chemical Laboratories (Research)	Good	Adequate
2	<b>Analytical Equipment:</b> - Scanning Infra-red Spectrophotometer - UV/Visible spectrometer (2) - Flame photometer (2) - pH meters - Balances (10)	Good Good Good Good Good	Adequate Adequate Adequate Adequate Adequate
3	<b>Classrooms:</b> - Space - Equipment - e-Library	Good Good Good	Adequate Adequate Adequate

4	<b>Safety &amp; Environment:</b> - Fire extinguisher (9) - First aid boxes (9) - Fume cupboards (13)	Good Good Good	Adequate Adequate Adequate
---	---	----------------------	----------------------------------

## **E. LIBRARY FACILITIES RELEVANT TO PROGRAMME**

### **1. Physical Library Holdings for the programme:**

Library facilities for the programme are available at the University Main Library, Departmental Library, the Institute of Petroleum Library, and the Library at the World Bank Africa Centre of Excellence Centre for Oilfield Chemicals Research (ACE-CEFOR). The materials available are current and relevant for studies in the area of pure and industrial chemistry

### **2. e-library**

The University of Port Harcourt is registered with several online e-books and e-journals platforms such as Elsevier through a project supported the MacArthur Foundation. And recently, the University through the ACE-CEFOR has subscribed to the NUC-coordinated NgREN programme, which is available to ACE-CEFOR and all her partner centres and departments including the Department of Pure and Industrial Chemistry.

### **3. Library Space (square metre):**

- (i) For Books: .....15 metre sq.....
- (ii) For Reading: .....30 metre sq.....

#### **a) Library Seating Capacity:**

- (iii) Seating Capacity for Users: .....20.....
- (iv) Others (specify): .....

#### **b) Library Equipment**

*List the equipment in the library and indicate their number and current functionality.*

The library is stocked with internet-ready desktops.

## F. FUNDING

### 1. Recurrent Expenditure

*Complete the table for availability of funds for the past three years*

Category	Year One		Year Two		Year Three	
	Provision	Expenditure	Provision	Expenditure	Provision	Expenditure
1. Staff Remuneration 2. Staff Development 3. Library materials 4. Laboratory consumables 5. Studio consumables 6. Office/classroom soft Furniture 7. Research 8. Maintenance 9. Supplies/Training consumables 10. Vehicle maintenance 11. Utilities services	Centrally handled by the University.	Centrally handled by the University.	Centrally handled by the University.	Centrally handled by the University.	Centrally handled by the University.	Centrally handled by the University.
12. Others (ACE-CEFOR)	\$90,000	\$90,000	\$90,000	\$90,000	-	-

### 2. Capital Expenditure

*Complete the table for availability of funds for the past three years.*

Category	Year One		Year Two		Year Three	
	Provision	Expenditure	Provision	Expenditure	Provision	Expenditure
1. Expansion of physical facilities. a) Classroom/lecture theatre b) ICT Facilities c) Library 2. Machines & Equipment 3. Others (specify)	The University set up the Science Institute to support research in Chemistry and related disciplines	TETFund sponsored project	The Science Institute Building completed	TETFund sponsored project	Contract awarded to procure laboratory furniture and equipment	World Bank funded project

### 3. Assets and Liabilities

**Liabilities:**

The Department has no liability.

**Assets:**

- (i) Students
- (ii) Staff
- (iii) Office furniture and equipment
- (iv) Glass blower workshop
- (v) Laboratory furniture and equipment

**4. Financial Appraisal**

Allocation of funds for recurrent expenditure has improved but, due to inflation and fluctuation of market prices it has not been possible for the University alone to meet our needs. Occasionally, special intervention grants provided by the University in the last two years have helped in ameliorating this problem. On the average, the Department spends about thirty thousand naira (₦30,000.00) per annum per student. More funds are needed to run the Department at the graduate level hence, the partnership with ACE-CEFOR for additional funds to support quality graduate education.

**G. EMPLOYMENT INDEX**

*Employers' rating of graduates of the Programme*

Year of Graduation	Percent that is self-employed	Percent that got jobs within 1 year	Summary of Employers' Remarks.

**H. STATE THE CONTRIBUTIONS OF THE ALUMNI OF THE PROGRAMME.****I. Name of officer completing the Form:**

..... **GLORIA UKALINA OBUZOR**.....

.....

**Rank:** .....**PROFESSOR**.....

.....



**Signature:** .....