

EVALUATION AND ACCREDITATION DOCUMENTS

M.Sc. Clinical Pharmacy

Africa Centre of Excellence in Phytomedicine
Research and Development (ACEPRD)
University of Jos

Nigeria

September 2019

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International evaluation and accreditation

EVALUATION REPORT

M.Sc. Clinical Pharmacy

Africa Centre of Excellence in Phytomedicine
Research and Development (ACEPRD)
University of Jos
Nigeria

JUNE – 2019

The University of Jos has mandated the Hcéres to perform the evaluation of its Master of Clinical Pharmacy programme. The evaluation is based on the "External Evaluation Standards" of foreign study programmes, adopted by the Hcéres Board on October 4th, 2016. These standards are available on the Hcéres website (hceres.fr).

For the Hcéres¹ :

Michel Cosnard, President

On behalf of the experts committee² :

Dominique Laurain-Mattar, President of the committee

In accordance with the decree n°2014-1365, November 14th, 2014,

¹ The president of Hcéres "contresigne les rapports d'évaluation établis par les comités d'experts et signés par leur président." (Article 8, alinéa 5) — "countersigns the assessment reports made by the experts' committees and signed by their president" (article 8, alinea 5). □

² The evaluation reports "sont signés par le président du comité". (Article 11, alinéa 2) — "are signed by the president of the committee" (article 11, alinea 2).

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I. STUDY PROGRAMME IDENTITY SHEET

1. University/institution: University of Jos, Africa Centre of Excellence in Phytomedicine Research & Development (ACEPRD)
2. Component, faculty or department concerned: Faculty of Pharmaceutical Sciences, Department of Clinical Pharmacy and Pharmacy Practice
3. Programme's title: Master of Clinical Pharmacy
4. Training/specialty: Master of Science degree in Clinical Pharmacy
5. Year of creation and context: 2014 through a World Bank alliance between the regional governments of West Africa. Study programme established in 2015.
6. Site(s) where the programme is taught (Town and campus): Faculty of Pharmaceutical Sciences with the support of the Africa Centre of Excellence in Phytomedicine Research & Development (ACEPRD), University of Jos. In addition, laboratory facilities are at the ACEPRD and also at the Faculty.
7. Programme director:
 - a. Surname, first name: Aguyi, John Chinyere
 - b. Profession and grade: Professor
 - c. Main subject taught: Pharmacology and Genetic Engineering

METHODS AND RESULTS OF THE PREVIOUS ACCREDITATION(S)

8. Methodology and agency

The Africa Center of Excellence in Phytomedicine Research and Development (ACEPRD) was established in 2014 through a World Bank alliance between the regional governments of West Africa, to harness the untapped potentials collaborations amongst African researchers with the focus of creating a sustainable agenda for health innovation in Nigeria and Africa.

9. Results

The MSc & PhD programs in Pharmacognosy, Clinical Pharmacy, Pharmaceutical microbiology, Biotechnology, and Bioinformatics & Genomics have been evaluated and accredited by the National Universities Commission in Nigeria in 2017.

HUMAN AND MATERIAL RESOURCES DEDICATED TO THE PROGRAMME

10. Human resources

The MSc in Clinical Pharmacy has a teaching staff including 4 Professors, 1 Senior Lecturer, 10 Lecturers in good agreement with the needs for training, research and mentoring internships for this multidisciplinary programme.

11. Material resources

Several recent equipments to perform sophisticated analyses have been acquired:

- Genetic analysis system: Beckman Coulter Genome Lab GeXP;
- High performance separation-Es Module with OptiMS Technology: Beckman Coulter's CESI 8000 Plus;
- Pharmaceutical analysis system: Beckman Coulter PA 800 Plus;
- Gas Chromatography-Mass Spectrophotometer: Scion 456-GC;
- Multi EA 4000: Analytkjena Elemental Analyser;
- Thermal Cycler: Jenway UV Spectrophotometer, PCR;
- Beckman Coulter- Allegra X15 Cold Centrifuge;
- Production of distilled and de-ionized water: Milli-Q Lab Water System;
- Electrophoresis equipment;
- Dissecting Microscope Tritech Research Fluorescence Microscope.

STUDENT POPULATION: EVOLUTION AND TYPOLOGY OVER THE LAST 4 YEARS

MSc in Clinical Pharmacy

S/No	YEAR	TOTAL/YEAR	FEMALES	MALES	INTERNATIONAL STUDENTS	NATIONAL STUDENTS	TOTAL
1	2015/2016	-	19	31	5	45	50
2	2016/2017	18					
3	2017/2018	17					
4	2018/2019	15					

II. ON-SITE VISIT DESCRIPTION

COMPOSITION OF THE EXPERTS PANEL

- Dominique LAURAIN-MATTAR, Professor, University of Lorraine, committee leader
- Valérie SCHINI-KERTH, Professor, Strasbourg University
- Frédéric RELAIX, Professor, Paris-Est University
- Mathilde COLAS, Student graduated from University of Technology of Troyes.

Hcéres was represented by Pierre COURTELLEMONT, science advisor.

ON-SITE VISIT DESCRIPTION

- Date of the visit: June the 10th, 2019.
- Organization of the visit: the visit was made the 10th of June, on the NUC site, during one day. On-site meetings with the management team, academic staff, closed meetings by videoconferencing with partners, alumni and students.
- Cooperation of study programme and institution to be accredited: perfect cooperation by all stakeholders, with the support of NUC team.
- People met (on NUC site):

John C. Aguiyi, director ACEPRD
 Ndidi C. Ngwuluka, Head of Department Pharmaceutics
 Ikoni Ogaji, Dean, Faculty of Pharmaceutical Sciences
 Dayom D. Wetkos, Head of Department, Clinical Pharmacology
 Dafam D. Gwatau, Head of Department, Pharmacognosy
 Ezekiel O. Afolabi, PG coordinator, Head of Bioinformatics
 Patrick O. Olorunfemi, Head of Department Pharmaceutical Microbiology
 Goni Dogo, ACEPRD laboratory
 Mark Kparamak, Project Administrator
 Taiwo E. Alemika, Deputy Centre Leader
 Patricia O. Odumosu, Head, Department of Pharmaceutical & Medicinal Chemistry

18 students (Arinze Umera (PhD Biochemistry), Akinsanmi Augustina Oduje (PhD Biochemistry), Chioma Eze (PhD Applied Microbiology), Amaka Ubani (MSc Bioinformatics and genomics), Francis Akpadja Kodjo* (MSc Pharmaceutical Microbiology), Adama Denou** (PhD Pharmacognosy), Rafiatou Ousmane* (MSc Biotechnology), Sariem Comfort (PhD Clinical Pharmacy), Daouda Labarou*** (PhD Bioinformatics and genomics), Agwom Francis (PhD Pharmaceutical Chemistry), Tougoma Atehezi* (PhD Physiology), Atchrimi Komi Sagnan* (PhD Physiology), Morenikeji Oluwatoyin (MSc Bioinformatics and genomics), Lapang Dominic (MSc Bioinformatics and genomics), Rwiann Victor (MSc Bioinformatics and genomics), Hamza Abdulrahman (MSc Bioinformatics and genomics), Samuel Isaac (MSc Bioinformatics and genomics), Ammanuel Dabwer Ben (MSc Biotechnology))

* from Togo, ** from Mali, *** from Niger. Other: Nigerians.

Partners and alumni by videoconferencing

III. PRESENTATION OF THE STUDY PROGRAMME

1 – PRESENTATION OF THE STUDY PROGRAMME

The institution delivering the programme is the University of Jos, Nigeria and the Africa Centre of Excellence in Phytomedicine Research and Development (ACEPRD)

The Master of Science (M.Sc.) in Clinical Pharmacy training programme was established in 2015 at the Faculty of Pharmaceutical Sciences of the University of Jos. The aim of this programme is to focus on the principle of drug therapy including also non-drug measures regarding the safety, efficacy and rational use of drugs, for the management of different diseases including both preventive and curative approaches. The students are expected to acquire skills needed to make wise judgements to improve patient therapeutic outcomes as they get involved in the patient care process. Such expertise is developed through the practice of pharmaceutical care during extensive clinical ward rounds in accredited health institutions and community pharmacies. Such training will enhance their ability to contribute to prevent, to identify and help to resolve therapy-related adverse effects as well as enhance inter-professional collaboration in patient management with other members of the health care team. During the training programme, candidates will acquire theoretical knowledge of the subject matter, research and practice to enhance their understanding and application of how to critically evaluate disease conditions that will form the basis for appropriate drug therapy.

The objectives are: to enable student acquisition of advanced knowledge and skills in clinical pharmacy and practice, to design, implement, monitor and evaluate treatment plans for individual patients through the development of professional competence in the therapeutics of selected diseases, as well as good communication skills, to develop competence in the utilization of medicines in large populations, and to acquaint candidates with requisite skills and knowledge to undertake original research in different aspects of pharmacy.

Specific features include: English for Special Purposes (ESP) for regional students from Francophone countries, E-learning development with subscription to Science Direct and NgREN, Internships for students in industries to forge academia-industry partnerships.

The program is developed within the Department of Clinical Pharmacy and Pharmacy Practice for teaching. Students will develop their research in the laboratory facilities at the ACEPRD or associated partners, which is situated at the University of Jos, and also at the Faculty of Pharmaceutical Sciences. No sub-specialization is indicated for the MSc Clinical Pharmacy. Students enrolled must possess a Bachelor of Pharmacy degree or any other degree such as Pharm.D. from a recognized University not below CGPA of 2.5. The mode of study for MSc Clinical Pharmacy is full time over a minimum of 12 months and a maximum of 24 months.

The position of the MSc Clinical Pharmacy with regards to local, regional and national university landscape has not been detailed. However, the ACEPRD is attracting students from the West African Region including Togo, Ghana, Burkina Faso, and Benin indicating a certain attractiveness of the training programme. In addition, the Centre has developed collaborations with several partner Universities from Benin, Cameroon, South Africa, and also the Ayurvedic University New Jersey, USA, and Pharmaceutical industries in Nigeria and research institutes. However, detailed information regarding the contribution of the academic and industrial partners to the training of the MSc Clinical pharmacy students is not provided.

Its main objectives is: to achieve excellence in educational training and applied research in drug discovery, production and management of phytomedicine, clinical pharmacy, biotechnology, pharmaceutical microbiology, proteomics, genomics and bioinformatics, to provide specialization that addresses regional and national health challenges and strengthening capacity and application of phytomedicine research and development as well as knowledge dissemination, and to facilitate an enabling environment that will stimulate promising research and training, facilitating dissemination, storage and sharing of academic, socio-economic and cultural development in Africa.

2 - PRESENTATION OF THE PROGRAMME'S SELF-EVALUATION APPROACH

The Committee that worked for & prepared the Accreditation report to HCERES comprised of the following:

1. Prof. Taiwo E. Alemika - Deputy Centre Leader (Chairman)
2. Prof. Ikoni J. Ogaji - Dean, Faculty of Pharmaceutical Sciences

3. Dr. Patrick O. Olorunfemi - Head, Department of Pharmaceutical Microbiology & Biotechnology
4. Dr. Ndidi C. Ngwuluka - Head, Department of Pharmaceutics
5. Dr. Wetkos D. Dayom - Head, Department of Clinical Pharmacy & Pharmacy Practice
6. Dr. Dalen G. Dafam - Head, Department of Pharmacognosy & Herbal Medicine
7. Dr. Patricia O. Odumosu - Head, Department of Pharmaceutical & Medicinal Chemistry
8. Prof. Ezekiel O. Afolabi - Department of Pharmaceutical & Medicinal Chemistry
9. Mr. Mark Kpamak - ACEPRD Admin Officer (Secretary)

IV. EVALUATION REPORT

1- AIMS OF THE STUDY PROGRAMME

The MSc Clinical Pharmacy course at the African Center of Excellence in Phytomedicine Research and Development in the University of Jos is positioned to offer pharmacists advanced education on the principle of drug therapy with respect to safety, efficacy and rational use of drugs for the management of different diseases. The programme enables students to design, implement, monitor and evaluate treatment plans for individual patients through the development of professional competence in the therapeutics of selected diseases in association to good communication skills. It also provides expertise in administrative and managerial aspects and the requisite skills and knowledge to undertake original research in different aspects of pharmacy to be able to enter the professional world or engage into a PhD programme in Clinical Pharmacy. Objectives regarding knowledge and skills to be acquired are clearly presented. The name of the programme is clear with regard to its objectives and content. ACEPRD provides an information booklet for students containing the objectives and content of the programme and policies (Students' Handbook for the Africa Centre of Excellence in Phytomedicine Research & Development). The MSc programme in Clinical Pharmacy is well positioned in terms of job opportunities. Overall the aims of the study programme are appropriate and well communicated to students.

The MSc Clinical Pharmacy of the African Center of Excellent in Phytomedicine and Research in University of Jos, provides students with the knowledge and skills regarding major pathologies, drug therapy, individualized patient management and administrative aspects needed to practice clinical pharmacy in a competent professional manner.

Objectives include 1) to critically evaluate disease conditions, 2) to understand and evaluate appropriate treatment plans for individual patients, 3) to acquaint with requisite skills and knowledge to undertake innovative research in the different aspects of pharmacy. The students' handbook provides detailed information regarding the curriculum. The study programme is clearly positioned in terms of further study programmes (PhD). Information of job opportunities is not provided to the students at the beginning of their enrolment. The study programme is positioned with regard to the business world in which graduates will eventually be employed.

2 – POSITION OF THE STUDY PROGRAMME

The MSc programme in Clinical Pharmacy has several academic and industrial partnerships mostly local and also a few regional and international ones but their precise contribution to the programme is not provided. Several national and international socio-economic partners support the programme. The programme offers a limited number of components of teaching through research and proposes several components in association to research such as internship, seminars, and workshops. Mechanisms to encourage the mobility of students, teaching and administrative staff mobility are indicated. Overall positioning of the programme appears good.

The position of the study programme within the local, regional, national or international range of study programmes is poorly presented. Potential competitor programmes from either academia or private organisms have not been provided. Nevertheless, it is worth to acknowledge that the programme attracts students from West African Region indicating a clear attractiveness and quality of the teaching programme within this part of Africa.

The study programme can benefit from the input of current partnerships including several national partners: Nnamdi Azikiwe University, Awka; National Veterinary Research Institutes (NVRI), Vom; National Institute for Pharmaceutical Research and Development (NIPRD), Abuja; Juhel Industries Ltd, Awka; Pauco

Pharmaceuticals Ltd, Awka; Gauze Pharmaceuticals Ltd, Awka; Gwalgwalada Specialist Hospital ; Plateau Specialist Hospital ; and Jos University Teaching Hospital. It can also benefit from several International partners: Salford University, Manchester; Université de Lyon, France; Sheffield Hallam University, UK; Université de Lomé; Université de Abomey-Calavi, Benin Republic; Université de Sciences et Techniques of Bamako, Mali; and Université de Burkina Faso, Ouagadougou. Moreover, it will benefit in the near future from the input of several new partnerships including Salford University, UK; National Veterinary Research Institute (NVRI), and National Agency for Food and Drug Administration and Control (NAFDAC). The type of partnership (teaching, internships, exchange programmes) is not provided in detail.

The training programme is supported by National and international socio-economic partners including Council for Advancement and Support of Education (CASE), USA; World Bank, USA, and Association of African Universities, (AAU), Ghana.

The MSc Clinical Pharmacy programme includes several core courses permitting students to acquaint skill and expertise for research activities, and the possibility to enrol after the MSc into a PhD programme. During the MSc programme, students have the ability to work with scientists from academia and industry with regard to the world of research. The list of Nigerian laboratories from academia, government agencies and industries supporting the programme has not been provided in detail.

All students enrolled in the Center's MSc programs will undertake a 1-month internship program at an industry related environment. They will be expected to identify a challenge for which a solution can be proffered. This should take place at the end of the first semester for Master students. Some students are performing their Master thesis research in a Central Laboratory (ACE), industries, and also in hospitals. For example in the MSc in Clinical Pharmacy, 9 students performed their Master thesis in the Department of Clinical Pharmacy and Pharmacy Practice, 11 MSc in Bioinformatics and Genomics in the Department of Pharmaceutical Chemistry, 9 MSc in Pharmacognosy in the Department of Pharmacognosy and Traditional Medicine, 3 MSc in Pharmaceutical Microbiology in the Department of Pharmaceutical Microbiology and Biotechnology, and 2 MSc of Biotechnology in the Department of Pharmaceutical Microbiology and Biotechnology.

Internship placement for MSc students:

- a. Juhel Industries Ltd, Awka
- b. Pauco Pharmaceuticals Ltd, Awka
- c. Gauze Pharmaceuticals Ltd, Awka
- d. ECWA Pharmaceuticals
- e. Gwalgwalada Specialist Hospital
- f. Plateau Specialist Hospital
- g. Jos University Teaching Hospital.

No detailed information is provided regarding the contribution of associate or guest lecturers or researchers to support strong links between teaching and research.

The study programme includes components of teaching through research in particular in the core course entitled « Research Methods in Clinical Pharmacy » and also in association with research such as project proposal on selected topics on current trends in Pharmacy practice, and any relevant subjects chosen by the student, and seminars. In addition, students have also the possibility to participate to local Workshops such as for example the short course on the Applications for cell lines in Phytomedicine research (February 12-16, 2018, ACEPRD Conference Center).

Partnership agreements between the institution and businesses, associations or institutions involved in an activity linked to the study programme have been mentioned during the on-site visit but have not been provided in detail. The list of Memorandum of Understanding has not been provided. Cooperation agreements or partnerships (regardless of whether they award qualifications) have been signed with foreign institutions and are adapted to the aims of the study programme. The detailed contribution of the partner to the programme (i.e., teaching, internship) is not been provided.

Mechanisms are implemented to encourage the mobility of students, teaching and administrative staff. During the discussion with students, one student indicated having been three times and each time for a 3-month period in Oslo for analysis of natural products by using chromatographic techniques. He was supported by his country of origin (Mali). No detailed information is provided.

3 – STUDY PROGRAMME TEACHING STRUCTURE

The MSc in Clinical Pharmacy programme trains students for knowledge and skills on the principle of drug therapy with regards to safety, efficacy and rational use of drugs, for the management of different diseases. Detailed information regarding the relevant core and electives courses is provided, however their positioning in the study programme to determine that students can gradually specialize is not provided. Internship programme allows students to acquire relevant skills, which is scheduled at the end of the first semester. The 1-month internships can take place in an industry-related environment including hospitals and also several partners pharmaceutical industries. Students obtain information regarding the development of their career by interacting with the teaching staff and people from the industry and hospital, yet a specific information session dedicated to the different job opportunities and additional training possibilities offered by this multidisciplinary programme to graduates would be more pertinent. The objectives, methods and assessment of the projects and internship are clearly defined and communicated. A service is in place to support students in looking for internships in particular with the help of their supervisor and external supervisor. Students have access to online internet to retrieve scientific information 24-h per day in all facilities. The study programme includes the possibility of national and international mobility through established partnerships.

The study programme includes a set of core courses (total of 24 credits) that provide students with advanced knowledge on major diseases, the underlying pathophysiological mechanisms, therapeutic targets and drug and herbal medicine therapeutics options for safety, efficacy and rational use of treatments for the management of diseases, as well as more professional components like pharmacy management, and research components, which are consistent with the objectives defined. The duration of each module (in hours) and the workload expected of students (in hours) are explicitly stated and known and reported in Student's Handbook.

The positioning of the different core and elective courses during the MSc programme is not provided. Therefore, it is not possible to appreciate that the study programme is organized so that students can gradually specialize. In case of research, the Master thesis project is based on teaching courses, seminars and the student's interest,

No information is provided in the study programme to take into account the challenges associated with lifelong learning. E-learning and a computer laboratory is available to all students. Students have access to e-learning in a dedicated computer laboratory with wifi access all over the Campus, and access to data bases such as Science Direct. Interactive (e.g. online courses and exercises, collaborative tools, etc.) or innovative teaching practices (e.g. project-based learning, serious games, active learning in lecture theatres, etc.) are encouraged. Innovative teaching practices include E-learning and project-based learning to define their Master thesis research project.

The study programme includes teaching components in a foreign language for International students from French speaking Countries since English is the language of courses. The study programme is accommodating students with special language needs. Indeed, English for Special Purposes (ESP) for regional students from Francophone countries is provided. Special requirements for disability, students with sporting commitments or in employment, etc. are not detailed.

The study programme includes some components to prepare students for employment and inform them about the working world by interacting with people from the industry and hospital when they contribute to teaching, and during mentorship of internship.

The study programme includes components that focus on understanding the world of research and its results during the elaboration of the research proposal, development of Master thesis research and writing of thesis under the supervision of a scientist. They will also be exposed to the world of research during their 1-month internship in an industry-related environment at the end of the first semester.

The study programme includes practical work components during the Hospital Pharmacy Practice depending on the host Clinical Departments. In addition, research dedicated practical work is obtained during the 1-month internship at the Centre or in an industry-related environment at the end of the first semester. Internships and projects are included in the study programme curriculum with students performing a 1-month internship at an industry-related environment after the first 6 months, and during their Master Thesis research. The objectives, methods and assessment of projects and internships are explicitly stated and understood by students. A service is in place to support students in looking for internships in particular with the help of their supervisor and external supervisor. Little information is provided to students regarding the development of their career.

The study programme allows students to acquire additional skills that are useful for employment or further study and students are made aware of their monitoring and validation or certification methods. Students are trained for additional skills such as scientific writing, oral communication, computer skills, and access to data bases to obtain scientific information on lead compounds from natural resources, seminars including discussion with their supervisors.

The study programme offers specific tools for successful programme completion. Refresher courses are proposed for some students starting the study programme, and English as foreign language for students from French speaking countries.

Students receive individual support via the input of the scientific supervisor and a supervisor of the Department during the project research proposal, seminars, Master thesis research, writing and defence.

No information is provided whether the study programme implements tools for successful programme completion (tutoring, division into ability groups, etc.).

No information is provided whether there are opportunities to transfer to other study programmes for a change of career plan.

The study programme encourages international mobility by sending and receiving students via international partnerships. During the on-site visit, the information was provided that one student went to Oslo and one to Germany however the information of student's level and track was not indicated.

4 – PROGRAMME MANAGEMENT

The study programme is well managed by a formally identified and qualified teaching team with roles and responsibilities clearly defined and presented in the Centre's website. Methods for testing knowledge are explicitly stated and consistent with the expected results of the study programme. Student recruitment methods are clearly defined and are transparent. The flow of national and international students is limited until now but clearly identifiable. Overall the programme management can be improved in particular regarding graduates outcome, and evaluation of teaching and of the programme to further develop the programme.

The study programme is managed and has sufficient administrative and teaching resources (administration office, classrooms, libraries, computer rooms, etc.) to enable it to fulfil its mission. The teaching staff includes Professors, senior Lecturers, Lecturers and Readers to cover the different specialties. The list of teachers is contained in the Students' handbook and can be assessed at the ACEPRD website. The role of each staff teaching member is clearly identified and described on the Pharmaceutical Sciences internet site (<http://aceprd.unijos.edu.ng/medicinal-plants>) and also in the Students' Handbook. The teaching resources including classrooms, libraries, and one computer room are appropriate to execute the study program.

During seminars, Master project proposal defence and Master thesis defence, all study programme players (teaching and research members) meet together.

The role and responsibilities of members of the teaching team in the different teaching courses is well defined. In addition, information of relevant Centre staff and Faculty including Program Manager, Deputy Center Leader, Dean Faculty of Pharmacy, Deputy Dean, Internship Coordinator, Students' Welfare officer, Animal House Manager and Director Health Center are provided in the ACEPRD Students' Handbook.

The proportion of teaching entrusted to external teachers from the industrial, socio-economic or cultural sectors consistent with the study programme is not provided. Similarly, their skills and responsibility level is not provided.

The composition and roles of the Department Academic Board, Post-graduate Academic Board, the Senate and the examination board are well outlined by the University in the Academic Regulations and Teacher's Code.

Courses evaluations include: continuous assessment, seminars, written examination, and project report in approved research area examined by an external examiner. The rules for validation of skills are clearly stated. Students will be assessed based in the regulation governing examination and assessments of the school of the post-graduate studies. Every enrolled student shall have attended a minimum of 75 % of total lectures and 100 % of practical sessions to be eligible for examination.

Teaching and practical professional sessions in this programme are expressed as skills. For the MSc of Clinical Pharmacy, skills include design, implementation, monitoring and evaluating treatment for individual patients, and drug utilization in large population. No detailed information is provided whether the study programme uses a skills portfolio or similar tool to help students formally record skills acquired.

Detailed information regarding students' numbers for each year is provided.

For the MSc in Clinical Pharmacy, a Bachelor of Pharmacy Degree from a recognized University not below CGPA of 2.5 is required for admission. Candidates from the University of Jos and other recognized Universities are eligible to apply. To attract international students of West and East Africa, the staff members of the Faculty of Pharmaceutical Sciences promote on-site the different programmes proposed. As a result, 55 applications were received in Liberia, 30 in Kenya, 16 in Togo, 23 in Mali, 22 in Cameroun, 19 in Niger and 17 in Uganda. The flow of international students is identified: from 2016-2018 5 foreign students were enrolled. However, the country of origin is not provided. Recruitment policies and admission criteria including academic prerequisite (undergraduate degree from a recognized University), and English skills are in lines with aims of the programme and final qualification of the programme

No precise information is provided whether the study programme collects and tracks graduate data to collect information about their situation, employment level and business sector. No precise information is provided whether stakeholders are aware of the pass rates, proportion of graduates who continue their studies and graduate employment rates.

No precise information is provided regarding methods for student evaluation of teaching, analysis of this evaluation and any follow-up actions are explicitly defined. No precise information is provided regarding student and graduate evaluation of the study programme and how it is taken into account in the self-evaluation process. No precise information is provided whether the study programme is subject to regular and periodic external evaluations.

Information regarding false declaration is provided.

V. CONCLUSION

The Master programme offers advanced training in Clinical Pharmacy for students with a Bachelor of Pharmacy degree and a selection criterion of a CGPA not below 2.5, since 2014. The MSc in Clinical Pharmacy training programme is a well-structured, multidisciplinary teaching track that provides students with advanced knowledge and skills on various components of Clinical Pharmacy including drug therapy of major diseases, drug safety, adjustment of treatment plans for individual patient, and professional components such as pharmacy management and good communication skills, and also courses dedicated to the different aspects of research including seminars and project proposal and defence. Objectives with regard to knowledge and skills to be acquired are clearly stated.

ACEPRD provides an information booklet for students containing detailed information regarding the objectives and content of the programme and policies. Graduates have good job opportunities in a broad health-related domain in the pharmaceutical industry, hospitals, pharmacies, government health agencies, research centers and also teaching at the University.

The MSc in Clinical Pharmacy is positioned within local, national, regional and international range of study programmes through collaborations with universities within the country and also several international universities. The attractiveness of the training programme is indicated by the enrolment of about 10% international students mostly from West and East Africa. Guest lecturers from partner universities contribute to the training of the students, co-supervision of students, internship locations and collaborative research/publications. Additional training is provided through workshops and short courses on special topics offered by ACEPRD.

The internationalization of the programme can be further developed such as by including video-conferences of leading experts and, if possible, short-term training periods in foreign countries, which will further increase the motivation of students, initiate their international network building and their competitiveness on the job market. Students will also get training on understanding the world of research and its results during the elaboration of the research proposal on a topic of interest in interaction with the teaching staff, the development of the Master thesis and writing of thesis under the supervision of a scientist, and during a 1-month internship in an industry-related environment at the end of the first semester.

The environment includes appropriate teaching facilities, a computer room, and 24-h internet access

throughout the campus and all facilities. The multidisciplinary teaching team is appropriate to cover the courses of the different disciplines and to mentor students for the research project. The gathering of information regarding the outcome of graduates, and the evaluation of the teaching courses and the programme by students and external examiners would help to further strengthen the appropriateness of the curriculum with regard to the needs of the professional market.

STRENGTHS

- Job opportunities in hospitals, pharmaceutical industries, Universities, and government agencies
- Involvement of several local industrial and hospital partners, and also of a few national and international partners for internships and contribution to teaching
- Attract several students from West Africa Region and provide them with financial student support
- Appropriate teaching staff number and composition, and teaching facilities for the multidisciplinary curriculum.

WEAKNESSES

- Low number of MSc graduates continuing their education by enrolling into PhD in particular female students
- Limited involvement of associate or guest lecturers or researchers to support strong links between teaching and research
- Limited number of partnerships with foreign education institutions
- Limited national and international exposure of students to start build a network enabling internship and job opportunities
- Limited comprehensive information on graduate outcomes that contributes to the attractiveness of the programme
- Updated alumni of graduates is missing to facilitate networking for mentoring, internship and job opportunities
- Absence of detailed evaluation of teaching by students and of the programme curriculum by students and external evaluators that helps to optimize the content of the programme for better professional integration.

RECOMMENDATIONS

- Continue to increase the attractiveness of the curriculum for national and international students
- Support further internationalization of the curriculum with involvement of leading international experts to teaching and a short-term international training period for students
- Improve teaching and research networks with regional, national and international partner Universities
- Provide manpower to track the outcome of the curriculum for improved attractiveness, mentoring and network building.

VI. COMMENTS OF THE INSTITUTION

UJ/ACEPRD/O102/03

August 25, 2019

Prof. François PERNOT

Directeur/Director

Département Europe et International

Europe and International Department

francois.pernot@hceres.fr

Dear Sir

COMMENTS OF THE INSTITUTION

The Africa Centre of Excellence in Phytomedicine Research and Development (ACEPRD), Faculty of Pharmaceutical Sciences, University of Jos has submitted 9 postgraduate programmes.

The HCERES has considered the programmes for evaluation and consequent accreditation, with the report made available to the Centre for comments.

The team of the ACEPRD/Faculty that considered the report and made comments available are:

- | | |
|-----------------------------|--------------------------------------|
| 1. Prof. John C. Aguiyi | Director/Centre Leader |
| 2. Prof. Ikoni Ogaji | Dean, Faculty of Pharmacy Sciences |
| 3. Prof. Taiwo E. Alemika | Deputy Director, ACEPRD |
| 4. Prof. Patrick Olorunfemi | Head, Biotechnology and Microbiology |
| 5. Dr. Wetkos Dayom | Head, Clinical Pharmacy and Practice |
| 6. Dr. Dalen Dafam | Head, Pharmacognosy |
| 7. Dr. Patricia Odumosu | Head, Bioinformatics and Genomics |
| 8. Mr. Mark Kparmak | Project Administrator |

Members of the team considered the report of each of the postgraduate programmes and made its comments as follows:

1. M.SC CLINICAL PHARMACY AND PHARMACY PRACTICE

Page 2. Study Programme Identity Sheet

Item. 10. Human Resources dedicated to the programme

There are 2 Senior Lecturers in the Department not 1 as submitted. There is an addition of 2 Lecturers are being appraised for promotion to Senior Lecturer. There will be 4 Senior Lecturers in total from October 1, 2019.

Page 3. Student Population

The Department presents an updated number for the admitted students.

S/No	Year	Total/Year	Female	Male	International	National	Total
1	2015/2016	-	29	39	5	63	68
2	2016/2017	24					
3	2017/2018	29					
3	2018/2019	15					

Note: The total number is cumulative for years 2015-2019

Page 5. Evaluation Report

Position of the Study Programme – paragraph 2:

The Centre's comment is, the programme structure is being fine-tuned to have specific entry and exit time for prospective applicants to note. This will guide applicants on when to apply and study within their convenient timing.

Page 6. Evaluation Report contd.

Paragraph 3:

1. The Department's research focus is mainly patient and clinic-oriented. Collaborating hospitals have the essential laboratories and tools that support research.

The Nigerian Institute of Pharmaceutical Research also accepts the students to conduct their researches in their facilities. The equipment and laboratories at the ACEPRD are also accessible to the Department students.

2. Associated Lecturers are based in the various hospitals offering evidence-based clinical teaching to the Department students in the collaborating hospitals.
3. Indeed, the students are mobile in sourcing for facilities within and outside the country to run their research but the example given here is not a student in the Department but in another Department.

Page 7. Study Programme Teaching Structure

Paragraph 3:

Challenges of life-long learning

Paragraph 4:

Special requirements for disability, students with sporting commitments or in employment.

Paragraph 7:

The Department will develop its curriculum and provide career guidance accordingly.

Page 9. Programme Management contd.

Paragraph 4:

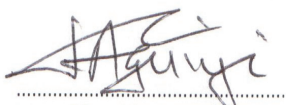
A template is being designed by which students at their exit point will fill and evaluate the course delivery and programme structure whose reports will provide for necessary adjustments to improve on the programme.

Page 10. Weaknesses

1. Some of the first set of graduates are still seeking permission of their employees to enroll into the PhD programme to pursue their specializations.
2. Most of the graduates already have paid employments but here are 2 of them with interest in academics and the University has employed them to teach in the Department.

Note: The Department is the first to run postgraduate programme in the North-Central Nigeria and second in the North generally.

Thank you.



Prof. John C. Aguiyi
Director/Centre Leader, ACEPRD
For: Team, ACEPRD

NB: URL TO LABORATORIES

http://aceprd.unijos.edu.ng/viewing_image/322fc987-4e53-455a-9063-2de163ab2ee7/
<http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/>

ACCREDITATION DECISION

M.Sc. Clinical Pharmacy

Africa Centre of Excellence in Phytomedicine
Research and Development (ACEPRD),
University of Jos, Nigeria

September – 2019

SCOPE OF THE ACCREDITATION GRANTED BY HCERES

HCERES has built its evaluation process based on a set of objectives that higher education institution study programmes must pursue to ensure recognised quality within France and Europe. These objectives are divided up into four fields among which are the accreditation criteria.

As for the "External Evaluation Standards", the accreditation criteria have been specifically designed for foreign programmes. The accreditation criteria were adopted by the Board on June 2016 and are available on the HCERES website (hceres.fr).

The accreditation committee, meeting his accreditation decision, has wholly taken into account the final evaluation report of the study programme. This accreditation decision is the result of a collegial and reasoned process.

The accreditation decision issued by HCERES shall not grant any rights whatsoever, whether in France or abroad. The decision on training programme accreditation confers an accreditation label and does not infer recognition of the accredited qualifications. The HCERES accreditation process therefore has no impact on the qualifications recognition process in France.

FULFILLMENT OF ACCREDITATION CRITERIA

FIELD 1: AIMS OF THE STUDY PROGRAMME

Accreditation criterion

The objectives of the study programme with regard to knowledge and skills to be acquired are clearly defined and communicated. Students and other stakeholders are aware of outcomes in terms of job opportunities and further studies.

Criterion assessment

The MSc Clinical Pharmacy course at the African Center of Excellence in Phytomedicine Research and Development in the University of Jos is positioned to offer pharmacists advanced education on the principle of drug therapy with respect to safety, efficacy and rational use of drugs for the management of different diseases. The programme enables students to design, implement, monitor and evaluate treatment plans for individual patients through the development of professional competence in the therapeutics of selected diseases in association to good communication skills. It also provides expertise in administrative and managerial aspects and the requisite skills and knowledge to undertake original research in different aspects of pharmacy to be able to enter the professional world or engage into a PhD programme in Clinical Pharmacy. Objectives regarding knowledge and skills to be acquired are clearly presented. The name of the programme is clear with regard to its objectives and content. ACEPRD provides an information booklet for students containing the objectives and content of the programme and policies (Students' Handbook for the Africa Centre of Excellence in Phytomedicine Research & Development). The MSc programme in Clinical Pharmacy is well positioned in terms of job opportunities. Overall the aims of the study programme are appropriate and well communicated to students.

FIELD 2: POSITION OF THE STUDY PROGRAMME

Accreditation criterion

The study programme has set a comprehensive positioning suited to its objectives and including a clear link with research, scholarly partnerships and/or with the economic and social world, national and/or international partnerships.

Criterion assessment

The MSc programme in Clinical Pharmacy has several academic and industrial partnerships mostly local and also a few regional and international ones but their precise contribution to the programme is not provided. Several national and international socio-economic partners support the programme. The programme offers a limited number of components of teaching through research and proposes several components in association to research such as internship, seminars, and workshops. Mechanisms to encourage the mobility of students, teaching and administrative staff mobility are indicated. Overall positioning of the programme appears satisfactory.

FIELD 3: STUDY PROGRAMME TEACHING STRUCTURE

Accreditation criterion

The study programme includes a set of teaching units that are coherent, gradual and adapted to all kind of students. The study programme allows students to acquire additional skills that are useful for employment or further study.

Internships and projects are included in the study programme curriculum. So are Information and Communication Technologies in Education (ICTE) and education innovations. The study programme prepares students for the international environment.

Criterion assessment

The MSc in Clinical Pharmacy programme trains students for knowledge and skills on the principle of drug therapy with regards to safety, efficacy and rational use of drugs, for the management of different diseases. Detailed information regarding the relevant core and electives courses is provided, however their positioning in the study programme to determine that students can gradually specialize is not provided. Internship programme allows students to acquire relevant skills, which is scheduled at the end of the first semester. The 1-

month internships can take place in an industry-related environment including hospitals and also several partners pharmaceutical industries. Students obtain information regarding the development of their career by interacting with the teaching staff and people from the industry and hospital, yet a specific information session dedicated to the different job opportunities and additional training possibilities offered by this multidisciplinary programme to graduates would be more pertinent. The objectives, methods and assessment of the projects and internship are clearly defined and communicated. A service is in place to support students in looking for internships in particular with the help of their supervisor and external supervisor. Students have access to online internet to retrieve scientific information 24-h per day in all facilities. The study programme includes the possibility of national and international mobility through established partnerships.

FIELD 4: STUDY PROGRAMME MANAGEMENT

Accreditation criterion

The study programme is implemented by a formally identified and operational teaching team including stakeholder and student participation. It is carried out by an educational team which benefits from clear and up-to-date data. Methods for checking knowledge are explicitly stated and communicated to students. Teaching and practical professional units are expressed in terms of skills. Anti-fraud measures have been implemented.

Criterion assessment

The study programme is well managed by a formally identified and qualified teaching team with roles and responsibilities clearly defined and presented in the Centre's website. Methods for testing knowledge are explicitly stated and consistent with the expected results of the study programme. Student recruitment methods are clearly defined and are transparent. The flow of national and international students is limited until now but clearly identifiable. Overall the programme management can be improved in particular regarding graduates outcome, and evaluation of teaching and of the programme to further develop the programme.

ACCREDITATION DECISION

Considering the accreditation criteria analysis detailed above, the accreditation commission takes the following decision:


“Five-year unreserved accreditation decision”

and draws attention to the various recommendations made by the committee of experts in its evaluation report:

- Continue to increase the attractiveness of the curriculum for national and international students.
- Support further internationalization of the curriculum with involvement of leading international experts to teaching and a short-term international training period for students.
- Improve teaching and research networks with regional, national and international partner Universities.
- Provide human resources to track the outcome of the curriculum for improved attractiveness, mentoring and network building.

SIGNATURE

For HCERES and on behalf of



Michel COSNARD,

President

Date: Paris, September 4th, 2019

The evaluation reports of Hceres
are available online : www.hceres.com

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