Foreword from the Head of Department

Professor Banji O. ADISA [NCE, B.Sc., M.Sc., Ph.D.]

The Department of Agricultural Extension and Rural Development (formerly named Agricultural Extension and Rural Sociology) was established in 1967 with three (3) major mandates: Teaching, Research and Community development service. At the undergraduate level, the Department offers B. Agriculture (Agricultural Extension and Rural Development). Recently, the Department got the University Senate approval to offer Bachelor of Science in E-Agricultural Extension and Community Engineering programme (supported by the Sasakawa African Funds for Extension Education-SAFE). The new programme will be offered in collaboration with the Centre for Distance Learning, Obafemi Awolowo University, Ile Ife (see details of the programme in this handbook). At the Postgraduate level, the Department offers M.Sc., M.Phil. and Ph.D. degree programmes in Agricultural Extension and Rural Sociology as well as in Agricultural Communication. In collaboration with the Centre for Distance Learning, the Department offers Certificate courses in Rural Development Studies, Extension Management and Administration as well as Agricultural Media Communication. Additionally, programmes in-view include: Postgraduate Diploma in Agricultural Extension and Rural Sociology; Postgraduate Professional Master of Science in Community Social Engineering; Agricultural Media Communication and Extension Science. Others include M.Phil. and Ph.D. degree programmes in Agricultural Media Communication. The Department offers courses and conducts cross-cutting edge research on various agricultural and community development issues. These form the basis for diverse areas of specialisation that align with the global current trends in agricultural and community development. Admission into these programmes is opened to students from Nigeria and other countries of the world. The Department has adequate, competent and internationally acclaimed academics and technical staff, who are specialists in different tracks of the discipline. There are sufficient material resources such as a well-equipped agricultural media laboratory; on-station and on-farm demonstration plots; an enterprise centre for natural fruits juice production (supported by the Sasakawa Africa Funds for Extension Education-SAFE) and other facilities for skills acquisition and adequate empowerment of students and farmers in agriculture. For more than five decades, the Department has contributed to the development of the University and agrarian communities around the University. Most of the graduates of the Department are excelling in different spheres of life, as teachers, researchers, administrators, managers, directors of industries, among others. The Integrated Rural Development Programme (IRDP), formerly known as Isoya project, which is an outreach programme of the University, is situated in the Department. The IRDP outreach programme has covered over 55 communities. The programme is recording huge successes in disseminating innovative technologies to youth, men and women residents in the pilot villages, thus, making positive impacts on their livelihoods. On behalf of staff and students, I warmly welcome you to the Department of Agricultural Extension and Rural Development, the Faculty of Agriculture (Upper Campus) in the most beautiful University in Africa- Obafemi Awolowo University. Please, feel free to read through the Handbook for more detailed information about the Department.

Thank you.

Prof. B. O. Adisa
Head of Department

Brief History of the University, and Faculty

The University

The Obafemi Awolowo University (then known as the University of Ife) was founded in 1962. It was established with the goal of meeting the nation's demand for high level manpower. A model of contemporary campus planning and design, the University is situated on 13, 850 hectares of land in the historical city of Ile-Ife in Southwestern Nigeria. At the moment, the University has witnessed a remarkable growth from an initial student population of 244 and 64 academic staff. The University, which offers undergraduate and post graduate programmes in Liberal Arts, Science and Technology, Business and Education in addition to selected professional programmes in a two-semester academic year, comprises 13 Faculties and over 90 Departments and Units. Since graduating its first students in 1966, the University has produced to date over 80, 000 alumni, many of who have distinguished themselves as national and international leaders in their various disciplines. Today, the University celebrates a rich tradition of excellence as a comprehensive public institution.

Mission, Vision, Objectives of the University

Our Vision

The vision is of a top rated University in Africa, ranked among the best in the world, whose products occupy leadership positions in the public and private sectors of the Nigerian and global economy, that has harnessed modern technology, social, economic and financial strategies, built strong partnerships and linkages within and outside Nigeria and whose research contributes a substantial proportion of innovations to the Nigeria economy.

Our Mission

To create a teaching and learning community for imparting appropriate skills and knowledge, behavior and attitude; advance frontiers of knowledge that are relevant to national and global development; engender a sense of selfless public service; and promote and nurture the African culture and tradition

Our strategic objectives

i. To produce graduates of international standard, with appropriate knowledge and skills in their fields of study, who will be highly employable and able to employ themselves;
ii. To provide high quality research and development activities that will promote the development of the nation and enhance the image of the University and researchers;
iii. To harness modern technology especially ICT and modern social, economic and financial strategies to run a cost efficient and effective academic programme and institutional management;
iv. To provide services that have relevance to and impact on the local community and the nation;
v. To provide conditions of study, work and living in the University community that is of appropriate standard;

vi. To expand access to tertiary education in the face of unmet demand; and
vii. To operate as an equal opportunity educational institution, sensitive to the principle of gender equity and non-discriminatory on the basis of race, ethnicity, religion or physical disability.

Names of Officers of the University

Chancellor H.R.H. Alhaji (Dr.) Abdul-Munini Kabir Usman – Emir of Katsina

Pro-Chancellor and Chairman of Council – Owelle Oscar Udoji,

Vice Chancellor- Prof. A. S. Bamire

Deputy Vice Chancellor (Academic)- Prof. M. O. Babalola

Deputy Vice Chancellor (Administration) Prof. O. M. A. Daramola

Registrar - Mrs. M. I. Omosule

Librarian - Dr. F. Z. Oguntuase

Bursar - Mr. S. O. Ayansina

Dean of Student Affairs- Prof. I. O. Aransi

Faculty of Agriculture

The Faculty of Agriculture is one of the first five faculties with which the University started functioning in 1962. In 1967/68 academic year, the faculty was one of the first units of the University to transfer to the permanent site at Ile-Ife.

Prior to 1981, the Faculty offered a unified 4-year degree programme in General Agriculture leading to award of B.Sc. (Agriculture). However starting from the 1981/82 academic session, the Faculty started the 5-year undergraduate degree programmes of B. Agric. (Agricultural Economics), B. Agric. (Agricultural Extension & Rural Sociology, now named Agricultural Extension and Rural Development), B. Agric. (Animal Sciences), B. Agric. (Crop Production and Protection), B. Agric. (Soil and Land Resources Management), and a 4-year B.Sc. (Family Nutrition and Consumer Sciences) representing the subject matter areas of six Departments in the Faculty.

Names of Officers of the Faculty of Agriculture

Dean of Faculty – Prof. A. J. Farinde

Faculty Secretary – Mrs. E. O. Olaobaju

The Department of Agricultural Extension and Rural Development

At the commencement of the University of Ife (now Obafemi Awolowo University), Ile-Ife, Nigeria, in 1962/63 academic year, the Department of Agricultural Extension and Rural Development (formerly Department of Extension Education and Rural Sociology) was not, until in 1967, when it was established with other four Departments in the Faculty of Agriculture. The Faculty had earlier been founded in 1964. The pioneering academic staff members of the Department were Professor Robert C. Clark who was the first Head of Department and Professor S. K. Taiwo Williams. Between 1968 and 1972, five other academic staff members joined the Department. These included Professor J. Ade Alao, Professor I. A. Akinbode, Professor A. A. Jibowo, Dr. Efionayi, and Dr. P. Roberts who was seconded from the University of Reading, England, as a Research Fellow in charge of the Isoya Rural Development Project (IRDP).

The IRDP, based in the Department, serves as a channel through which the University research outputs are packaged and disseminated to people in the neighboring communities for improved livelihoods.

Philosophy and Objectives of the Department

The goal of the Department is to produce graduates with requisite knowledge, skills and attitudes in the agricultural and community development processes and those who possess the competence to effectively transmit such skills to male and female farmers and other members of the public for inclusive improved livelihoods. The objectives are to:

(i) enhance students' acquisition of the understanding of basic natural science concepts, which are applicable to agriculture;
(ii) enhance students' comprehension of agricultural science concepts, principles, theories and skills in crop production, livestock production and soil management; fisheries and renewable resources, as well as farm family, resources and consumer science and management;
(iii) help students' understand and apply basic principles in agricultural economics and farm management;
(iv) a mastery of the concepts, principles, theories and skills in agricultural extension, community engineering and development, as well as rural sociology, needed to effectively transmit improved practices, innovations and technologies in agriculture to the practicing farmers and other members of the public;
(v) teach community engineering skills in research methodology needed to diagnose and approach agricultural and community development problems with confidence and effectiveness; and
(vi) help students acquire experience in development projects in some rural communities in the catchments area of the university through exposure to extending research information in agriculture, health, housing, home economics and other areas of rural life to improve the quality of life of the rural dwellers.

Foundation Staff Profiles

Professor Robert Clark

Professor Robert Clark was the first Head of the Department of the then Department of Extension Education and Rural Sociology (now Department of Agricultural Extension and Rural Sociology) of the then University of Ife (now Obafemi Awolowo University), Ile-Ife, Nigeria. He held this position between 1965 and 1967. He was part of the USAID/University of Wisconsin Team.

Professor S.K.T. Williams

Professor Saidique Kolawole Taiwo Williams obtained his Bachelor of Arts degree in Agriculture in 1955. In 1959 and 1961, he obtained Master of Arts (Cantab.) and Master of Science in Extension Education, respectively. He thereafter proceeded to earn his doctorate in Extension Education in 1967. He was a Scholar of the Rockefeller Foundation in 1963-1966. Professor Williams, who is one of the founding fathers of the Department of Extension Education and Rural Sociology (now Department of Agricultural Extension and Rural Sociology), started his teaching career in the Faculty of Agriculture in then University of Ife (now Obafemi Awolowo University) as Lecturer between 1966 and 1967. He was a Senior Lecturer from 1967 to 1972 and then attained the rank of Professor in 1972. He became the first indigenous Head of Department in 1967 and held the position up to 1976. His area of research interests were in Extension training needs and Rural Development within which he had published books and articles in many reputable journals. He worked tirelessly to ensure the upliftment of the Department. He had served in various capacities while in the service of the University. Professor S.K.T. Williams was Vice Dean, Faculty of Agriculture (1969–1972); Dean, Faculty of Agriculture (1971-1974); and Deputy Vice Chancellor (1976-1978). Professor Williams was one of the initiators of the *Isoya* Rural Development Project. He disengaged from the service of the University later in 1978 after which he proceeded to join the service of the University of Ibadan also in south western Nigeria. He is a member of many professional associations and first President and Fellow of the Agricultural Extension Society of Nigeria (AESON).

Professor J. Ade Alao

Professor Joseph Adebanji, Alao earned his B. Sc. (Hons.) in General Agriculture from the University of Ibadan in 1964. He proceeded to Cornell University, Ithaca, New York, where he obtained both his M.S. (Extension Education and Rural Sociology) and PhD (with a major in Development Sociology and a minor in Agricultural Economics and Extension Education) in 1966 and 1971, respectively. He was a Federal Government Scholar at the Federal Science School, Lagos and the University of Ibadan in 1958-1959 and 1960-1964, respectively. He was also a fellow of the Food and Agriculture Organization (FAO) of the United Nations in 1967 and of the Alcuin College, University of New York in 1973 among others. He had started his teaching career at the University of Ibadan earlier in 1966 before transferring his service to the Department of Extension Education and Rural Sociology in the then University of Ife (now Obafemi Awolowo University), Ile-Ife, Nigeria in 1967. There and then, he gave a supporting hand to Professor S.K.T. Williams, who took over from Professor Robert Clark as the Head of Department, to build a virile academic Department. At one time, he refused to take up an appointment with a United States of America's University; an evidence of his commitment to

the development of the Department. Professor Alao's research interests were in Diffusion studies and Rural Development studies. He served the Department and University in various capacities. He was Head of Department from 1995 to 1998. He also played an active role in the conceptualization and development of the philosophy of *Isoya* Rural Development Project. He was Coordinator of the Project between 1971 and 1973. He rose through the ranks from the position of Lecturer in 1967 to a full Professor in 1978. He was a member of many professional associations including Cornell Association of Extension Educators, Rural Sociological Society, American Sociological Society, International Sociological Association, European Society for Rural Sociology, Agricultural Society of Nigeria, Nigeria Anthropological and Sociological Association (NASA), International Rural Sociological Association and West African Association of Agricultural Economists (WAAAE) among others. Professor Alao attended international conferences in Africa, Europe and America.

Professor I. A. Akinbode

Professor Isaac Adefolu Akinbode had his B. Sc. (Hons.) in Agriculture from the then University of Ife (now Obafemi Awolowo University), Ile-Ife, Nigeria in 1966. In 1969, he obtained his MSc. (Extension Education) from the University of British Columbia, Canada. He proceeded to the University of Wisconsin, Madison, where he got his doctorate in Cooperative Extension Administration in 1974. He was a Western Nigerian Government Scholar (1963-1966), Commonwealth Scholar and Fellow (1967-1969) and University of Ife/USAID/University of Wisconsin Training Award Winner (1971-1974). Professor Akinbode joined the service of the Department as Junior Research Fellow in 1966 and later became an academic staff as Assistant Lecturer in 1969. He rose to the rank of Professor of Agricultural Extension and Rural Sociology in 1980. His area of research interest is in Cooperative Extension and Communication. He was single handedly responsible for the development of the MSc (Agricultural Communication) programme. Professor Akinbode was the Head of Department from 1976 to 1977 and 1981to1982. He was also Vice Dean, Faculty of Agriculture from 1977 to 1979 and Dean from 1985 to 1987. He later transferred his service to the University of Agriculture in 1988 on a leadership cadre appointment for Programme Development as a Professor of Agricultural Extension and Rural Development and Dean, College of Agricultural Management, Rural Development and Consumer Studies. Professor Akinbode had contributed immensely to the upliftment of the Department in every way. He was a member of many professional bodies such as the Agricultural Society of Nigeria, Science Association of Nigeria, West African Association of Agricultural Economists, National Adult Education of America and Nigerian Guild of Agricultural Communicators among others. Professor Akinbode attended international conferences in Europe and Africa.

Professor A.A. Jibowo

Professor Abraham Adegboyega Jibowo bagged his Bachelor of Science (Hons.) degree in general Agriculture in the then University of Ife (now Obafemi Awolowo University), Ile-Ife, Nigeria in 1968. He thereafter proceeded to the University of Wisconsin, Madison, where he earned his M.S. and PhD both in the field of Extension Education in 1971 and 1973, respectively. He was awarded the USAID scholarship between 1969 and 1973. He had earlier started his teaching career in the Department as Assistant Lecturer in 1972. He was Lecturer II in 1973; Lecturer I in 1977; Senior Lecturer in 1979; Reader in 1982; and full Professor in 1984. His areas of research interest are leadership, group dynamics and extension programme planning and evaluation. He was a Visiting Professor in the Department of Sociology, Colorado State University in 1986. Professor Jibowo had served the Department, Faculty and the University at various levels. He was Head of Department

from 1988 to 1991; and from 1998 to 2001. Professor Jibowo was Dean, Faculty of Agriculture from 1995 and 1997. Professor Jibowo contributed, in no small measure, to the raising of academic standard in the Department. He is a member of many professional associations including the Agricultural Society of Nigeria, International Rural Sociological Society, Adult Education Association, USA, Association for the Advancement of Agricultural Sciences in Africa, Nigerian Association for Agricultural Education and the Nigerian Rural Sociological Association. He was the President of Agricultural Extension Association of Nigeria between 1998 and 2002. Professor Jibowo is also a member of the Research Board of Advisors, American Biographical Institute (ABI), Raleigh, North Carolina, USA. Professor Jibowo attended a number of international conferences in Europe, United States of America and Africa.

Professor E.E. Ekong

Professor Ekong Edem Ekong started his Bachelor's in general Agriculture in University of Nigeria, which he later completed in the then University of Ife (now Obafemi Awolowo University), Ile-Ife, Nigeria, in 1970. He obtained his Master of Philosophy (Extension Education and Rural Sociology) also in the University of Ife in1972. He then proceeded to the University of Wisconsin, Madison to pursue his Doctorate in Sociology, which he completed in 1975. He was Eastern and Federal Government of Nigeria Scholar in 1965-1967 and 1968-1970, respectively. He also won the University of Ife studentship award in 1970-1972. Professor Ekong was a USAID Scholar in 1972-1975 and was Kellog Travel Fellow. He started his career as Lecturer II in the Department in 1975 and rose through the ranks to become a Professor in 1985. He was Head of Department between 1985 and 1988. Professor Ekong's research focus has been in the area of rural community development studies. Having contributed his quota to the development of the Department, he thereafter transferred his service from the University of Ife to the University of Uyo, Akwa Ibom State, Nigeria in 1988, where he later became Vice- Chancellor. Professor Ekong is a member of a number of professional bodies, which include the Nigerian Anthropological and Sociological Association, American Rural Sociological Society, International Rural Sociological Association, and American Sociological Association. He was president of the Nigerian Rural Sociological Association. Professor Ekong attended international conferences in Europe, United States of America and Africa. In recognition of his contribution to national development in Nigeria, Professor Ekong was awarded the Order of the Federal Republic (OFR) in 2006.

Professor E. A. Laogun

Professor Ebenezer Ayodele Laogun obtained his Bachelor of Science degree in General Agriculture in 1974 from the Southwest Missouri State University, Springfield. He thereafter got his Masters in Agricultural Economics in 1975 from the Northwest Missouri State University, Maryfield and his Doctorate in Agricultural Extension Education in 1977 from the Oklahoma State University, Stillwater, Missouri in the United States of America. He won the Rotary Club International, Missouri Scholarship in 1974 and the Federal Government of Nigeria Scholarship in 1975. He was appointed as Lecturer II in the Department in 1978 and became a full Professor in 1999. His research interests are in Extension training needs and teaching learning process. He served both the Department and Faculty in various capacities. He was the Head of Department between 1990 and 1995. He was also Coordinator of the *Isoya* Rural Development Project from 1982 to 1986. He was Vice-Dean, Faculty of Agriculture from 2001 to 2002. He is a member of a number of professional associations, which include the Agricultural Society of Nigeria, National Adult Education Association of America, International Sociological Association, Association of American Teachers of Agriculture (AATEA), and the African Studies

Association, USA. He was the first Secretary General of the Agricultural Extension Society of Nigeria. Professor Laogun contributed immensely to the development of the Department. He has attended international conferences in the United States of America and Africa.

Academic Staff Profiles

Professor A. J. Farinde

Professor Akinloye Jimoh Farinde, holds B. Agriculture (Ife) 1987; MPhil (OAU) 1991; and PhD (OAU) 1996 (Agricultural Extension and Rural Sociology). He joined the services of Obafemi Awolowo University on the 26th September, 1991 as an Assistant Lecturer, promoted Lecturer II in 1995 and regarded Lecturer I in 1996. In 1999, he was promoted to the rank of Senior Lecturer, Reader in 2006 and became a full Professor of Agricultural Extension and Rural Sociology of Obafemi Awolowo University on the 1st of October 2009. His research focuses on Agricultural communication, programme planning and evaluation of development programme. He had won a number of fellowships, awards and research grants such as Obafemi Awolowo University Graduate Fellowship award (1990), Ford Foundation Sponsorship for Higher Degree Project (1991); and Cocoa Marketing Board Research Grant (1996). He has also benefited and actively participated in a number of group Research: National Agricultural Research Project (NARP) Research Grant (2000); Carnegie Corporation of U.S.A (2003); Department for International Development (DFID), U.K. (2005); University Research Council (URC) Joint Research, OAU, Ile-Ife (2006); and DelPHE Project 643- DFID, U.K. (2009 -2012). Professor A .J. Farinde has remained focused and committed to the three core areas of his career, which is teaching and supervision, research and service to the community. He has successfully supervised 17 PhD and 14 M.Sc. Students' theses as at September 2019. He was External examiners for Undergraduate programme and Postgraduate Degrees (M.Sc. & PhD) and External Assessor for many Universities in Nigeria and abroad. He was a Visiting Professor to the Department of Agricultural Education and Extension, University of Eswatini, Eswatini, Southern Africa between 2017 and 2019. Professor Farinde was the Acting Head of Department of Agricultural Extension and Rural Sociology (2004 – 2006), Vice-Dean, Faculty of Agriculture (2005-2006); and Chairman, Faculty of Agriculture Internship Committee(2003- 2005) and Head of Department of Agricultural Extension and Rural Development (2011-2014). At the University level, he served as the Hall Master, Muritala Muhammed Postgraduate Hall (2008- 2011) and Communication Officer for OAU Science & Technology Education Post Basic Project (STEP-B PROJECT) 2008 - 2012. At the Professional level, Prof. Farinde was the National Vice President I of Agricultural Extension Society of Nigeria (AESON) and active member of Rural Sociological Association Nigeria (RuSAN), International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP), Nigeria Forum for Agricultural Advisory Services (NIFAAS), Swaziland Educational Research Association (SERA), and Southern Africa Educational Research Network (SAERN) among many others. At the community level, he has rendered unquantifiable services. Professor Farinde is a reviewer to many local and international academic Journals and has attended many learned conferences locally and internationally. He attended German Government's sponsored 21st International Training for Rural Youth Leaders held at the Bavarian Farmers' Union Training Centre in Herrsching, Germany in 2002. He has published numerous scientifically researched articles in the field of extension and rural sociology in reputable local and international academic journals. He is current sitting Dean-Faculty of Agriculture, Obafemi Awolowo University, Ile-Ife, Nigeria.

Professor D. O. Torimiro

Professor Dixon Olutade Torimiro, a Nigeria's Federal Government Scholar, obtained an Ordinary Diploma in General Agriculture from the School of Agriculture, Akure. He had a B. Agric. (Hons.) from the Ogun State University, Ago -Iwoye, M. Sc. and Ph. D. from the Obafemi Awolowo University Ile-Ife, Nigeria. He was a member of College of Research Associates, United Nations University's Institute of Natural Resources in Africa (CRA/UNUINRA), Ghana in 2002 and Laureate of the Council for the Development of Social Science Research in Africa's (CODESRIA's) Child and Youth Studies Institute-2004. He rose through the ranks to the position of Professor of Agricultural Extension & Rural Sociology with effect from 2009 and served as acting Head, Department of Agricultural Extension and Rural Development (2006-2008); and Pre-degree Programme Coordinator, Centre for Distance Learning, Obafemi Awolowo University, Moro Campus (2017-date). Professor Torimiro also held teaching and/or research positions in Ogun State University, Ago-Iwoye, Federal University of Technology, Akure, Crawford University, Igbesa and University of Botswana's College of Agriculture, Gaborone. He was a Visiting Professor to Cape Breton University, Canada as IDRC Scientist in 2013 and also a Visiting Professor to North West University, South Africa, as ECOWAS-AAU Fellow in 2016. He is a Co-initiator and former President of the International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP-Network) in Nigeria. He is a pioneer member of University of Glasgow's Strategic Network for Sustainable Future in Africa (SFA), UK, inaugurated in the University of Botswana in 2017. His participation at the German Government's sponsored 21st International Training for Rural Youth Leaders held in 2002, at the Bavarian Farmers' Union Training Centre in Herrsching, Germany under the patronship of the United Nations' Food and Agriculture Organization (FAO) led to the initiation of the African Centre for Rural Youth Empowerment (ACRYE) - his action plan for Nigeria. He is the Chairman, Board of trustees of the Centre. He has both singularly and collaboratively won a good number of highly competitive grants from national and international institutions such as CODESRIA, OAURC, AAU/DFID, IDRC, ESRC. He had consultancy experiences with the World Bank, AAU, CCARDESA, JDPC and with Ondo State Government of Nigeria.

He belongs to a good number of local and international professional associations, among which are the Agricultural Extension Society of Nigeria (AESON), Rural Sociological Association of Nigeria (RuSAN), International Rural Network (IRN), Scotland, Union for African Population Studies, Tanzania, Global Forum for Rural Advisory Services (GFRAS), Switzerland and a member of the Research Board of Advisors of the American Biographical Institute, Raleigh, USA. He has successfully supervised and mentored many graduate students. Professor Torimiro has served as External Examiner and assessor of professorial candidates for many universities within and outside Nigeria. These Universities include: North West University, Mafikeng, South Africa, University of Swaziland, University of Ibadan, Federal University of Agriculture, Abeokuta, University of Ilorin, Federal University of Technology, Akure, University of Benin, Olabisi Onabanjo University, Ogun State, Ekiti State University, Osun State University, Ejigbo campus and Tai Solarin University of Education. He is on the editorial board of and reviewer to some local and international academic Journals. He has attended many learned conferences locally and internationally. He has published over 120 articles including journals, books and chapter in books related to extension and rural sociology in reputable local and international academic outlets. Professor Torimiro has a very good experience in grantsmanship, academic mentorship, performance management system, guardian and counseling.

Professor (Mrs.) O. F. Deji

Professor (Mrs.) Olanike, F. Deji (nee Olaniyan) obtained her B. Agric. (First Class Hons.), M. Phil. and Ph.D. from the Obafemi Awolowo University, Ile-Ife, Nigeria in 1994, 1998, and 2002 respectively. She joined the academic service of the University as a Graduate Assistant on 1st June 1995, and rose through the ranks to a Become the first female Professor in the Department in 2012. She was a laureate of the Council for the Development of Social Science Research in Africa (CODESRA) in 1998. She was awarded a grant to attend a DAAD sponsored Ahfad-Humboldt Link Programme workshop on Gender Research and Networking in Germany and Sudan in 2006 and 2007 respectively. Her interests are in women and gender empowerment for Sustainable Rural Community Development; gender responsive Climate change adaptation and mitigation strategies; Agricultural Informatics and Adoption of Artificial Intelligence in Agricultural Innovation Dissemination and Rural Advisory; e-agricultural Innovation Dissemination and Rural Advisory e-agricultural extension and community engineering strategies and models. Prof. (Mrs.) Deji also works in the area of participatory methodology in Gender and Rural Development Research. She was the Head of Department of Agricultural Extension and Rural Development from 2018 and 2020. She was the Acting Head of Department during 2013/2014 and 2015/2016 sessions. She was a fellow of Norman Borlaug program for women scientists, USA (2008); ACU/TITULAR fellowship of the University of Manitoba, Canada (2009); and George Foster fellowship for experienced Researcher of Alexander von Humboldt Foundation of Germany (2009-2011). She is a recipient of the Humboldt Foundation Alumni Award in 2012. She won the equipment grant by the Humboldt Foundation to procure the first sets of 20-desktops in the Agricultural Media Resources Laboratory (AMREL), and the Artificial Intelligence-enable Agriculture Research and Communication Laboratory (IA-ARCLAB) in the Department. She has successfully organized two international workshop and conference with sponsorship from the Humboldt Foundation of Germany. She is a sole author of two volumes of academic books and published more than 60 articles in reputable peer reviewed Journals. Prof. (Mrs.) Deji is a member of a number of professional associations such as Agricultural Extension Society of Nigeria (AESON), Rural Sociological Association of Nigeria (RuSAN), International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP), Community Platform for African-European Partnership in Agricultural Research for Development Phase II (PAEPARD II), just to mention a few. Professor Deji has contributed to the development of the Department immensely; she successfully anchored the mainstreaming of gender into the Department curriculum and single handedly coordinated the development of the curriculum and modules as well as the approval procedure for the commencement of Bachelor of Science (BSc.) Degree in E-Agricultural Extension and Community Engineering, supported by the Sasakawa Africa Funds for Extension Education (SAFE), and the establishment of an enterprise centre for Natural Fruits Juice Production Centre sponsored by SAFE. She is a co-founder of the first Agricultural Informatics Research Laboratory (AirLab) and founder of the AI-ARCLAB for Artificial Intelligence integration to Agricultural Extension and Rural Advisory services in Nigeria. She has successfully supervised 1 Postdoctoral, 6 Ph.D, 4 M.Phil. and 4 M.Sc. students. Professor Deji has meritoriously served the Faculty and the University in many ways; She has participated in many international conferences, workshops, and seminars in Africa, Canada, Europe, and United States of America.

Prof. A.O. Ajayi

Prof. Adedayo Olufemi Ajayi obtained B. Agric. (Hons) (1990), M.Sc. (1996) and Ph.D. (2002) in Agricultural Extension and Rural Sociology from the Obafemi Awolowo University, Ile-Ife, Nigeria. He also holds International Postgraduate Certificate in Models of Sustainable Development: Initiatives for Rural Communities in Desert Areas" from Hebrew University of Jerusalem, Rehovot Campus, Israel in 2011. He is a Laurette of the Council of Development in Social Research in Africa (CODESRIA). He had fellowship award to attend the eighth African Nutrition Leadership Programme by School for Physiology, Nutrition & Consumer Sciences, North West University, Potchefstroom, South Africa and Netherlands Fellowship Programme granted by Netherlands Government to participate in a course on "Agriculture in Transition: Analysis, Design and Management of Sustainable Farming Systems" at the Wageningen University, The Netherlands. He was the Head of Department, Vice-Dean, Deputy Director Teaching and Research Farm. He was a Visiting Professor of Agricultural Extension and Rural Development in the Department of Agricultural Education and Extension, Faculty of Agriculture, University of Eswatini (2020-2022). He had published to his credit well researched articles in reputable local and international journals. Prof. Ajayi had attended many conferences and workshop within and outside Africa. Before his appointment as a lecturer, he was the Programme Officer in charge of Research and Training in Quality of Life Foundation, a Non-Governmental Organisation based in Nigeria. He is specialist in training, extension programme planning, evaluation, administration and qualitative research. He is a Life member of Agricultural Extension Society of Nigeria (AESON), Life member of Rural Sociological Association of Nigeria (RuSAN), Member, International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP), Member, Nigerian Forum for Agricultural Advisory Services and Member, Global Forum for Rural Advisory Services. He was the Editor-in-Chief, Annals of Child and Youth Studies, 2013-2016 and presently the Editor-in-Chief of Ife Journal of Agriculture. He successfully supervised four PhD. His Current research is making extension graduates entrepreneurs and stakeholders' engagement.

Prof. B. O. Adisa

Prof. Banji Olalare Adisa obtained the Nigerian Certificate in Education from Adeyemi College of Education, Ondo in Ondo state in 1984. He thereafter proceeded to earn his B.Sc in Vocational Agricultural Education from University of Nigeria, Nsukka. He obtained his M.Sc and Ph.D from the Obafemi Awolowo University Ile-Ife. He taught Agricultural Sciences in various Secondary Schools in Osun State. Also worked as part-time lecturer at the Department of Vocational and Technical Education, Osun State College of Education, Ila-Orangun. He was later appointed at the Department of Agricultural Extension and Rural Sociology, College of Agricultural Sciences, Olabisi Onabanjo University, Ago-Iwoye as Lecturer II in December 2001, and was promoted to Lecturer I in October 2005. He joined the service of Obafemi Awolowo University as Research Fellow I in November, 2006 and was promoted to the rank of Senior Research Fellow in October, 2009. In 1st October 2012, he was promoted to the rank of Principal Research Fellow and he was promoted to a Professor on 1st October, 2015. He coordinates the Integrated Rural Development Programme, (Isoya) in the Department of Agricultural Extension and Rural Development. His research interest is in the area of Rural Development, Women and Youth Empowerment and Environment Studies. He is a registered member of number Professional bodies in the country such as Rural Sociological

Association of Nigeria (RuSAN) where he served as the General Secretary for six years, International Research and Development Network of Children and Youth in Agriculture (CYIAP) where he served as General Secretary and Editor-in-Chief for CYIAP Publications, Agricultural Extension Society of Nigeria (AESON), Environmental and Behavioural Association of Nigeria (EBAN) and National Research of Agriculture on Pilferage in Agriculture. He has published extensively in Local, National and International Journals. He has also attended very many learned Conferences, Workshops and Seminars. He is at present the Head of the Department.

Prof. F.O. Adereti

Prof. Francis Oke, Adereti obtained a National Certificate in Education (NCE) in Agricultural Science in 1984 from Adeyemi College of Education, Ondo. He got his B.Sc. (Vocational Agric. Education) in 1987 from the University of Nigeria, Nsukka. He later proceeded to the University of Ibadan where he obtained his M.Ed. (Curriculum Studies in Science Education) and Ph.D (Agricultural Extension) in 1991 and 2000 respectively. Prof. Adereti was a Senior Lecturer at the Department of Agricultural Science, Adeyemi College of Education between 1992 and 2002 before he joined the service of Obafemi Awolowo University as Lecturer I in 2002. He is presently a Professor in the Department of Agricultural Extension and Rural Development in the University. His research interests are agricultural education, rural women and poverty studies. He is a member of a number of professional associations, which include National Association of Agricultural Education, National Association of Agricultural Education in Nigeria Colleges of Education, Agricultural Extension Society of Nigeria (AESON), Science Teachers' Association of Nigeria (STAN), Rural Sociological Association of Nigeria (RuSAN) and International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP NETWORK) in Nigeria. Prof. Adereti has published in reputable local and international academic journals.

Prof. S. A. Adesoji

Prof. Solomon Adedapo Adesoji obtained Nigerian Certificate in Education (NCE) in 1981 from Ilesa, B.Sc. (Hons) Agricultural Extension Services from University of Ibadan in 1986, M.Sc. (2003) and Ph.D. (2010) in Agricultural Extension and Rural Sociology from the Obafemi Awolowo University, Ile-Ife. Before his appointment as lecturer, he was an Agricultural Extension officer with Osun State Agricultural Development Programme. He also worked as a farm manager (training) with Agricultural Youth Empowerment Programme (OSSAYEP) under the Ministry of Agriculture of Osun State. He was appointed a lecturer at the University of Ado-Ekiti in 2005. He left the University as a lecturer II in 2010. He joined the Obafemi Awolowo University in 2010 as Lecturer I and he is presently a Professor in the department. His wide experience on the field as an Agricultural Extension Officer developed his interest in Fishery management which he studied at doctoral level. Prof. Adesoji developed his interest in fishery extension Management. He is into Agricultural Administration, Programme evaluation and communication. Prof. Adesoji is a fellow of the prestigious Brown International Advanced Research Institute of the Brown University in Providence Island United State of America. He is also a grant winner of the same Institute. Prof. Adesoji had published to his credit well-researched journal articles in reputable local and international journals. Prof. Adesoji was the Head of the Department between 2020 and 2022. Prof. Adesoji is a member of Agricultural Extension Society of Nigeria (AESON), Rural Sociological Association of Nigeria (RuSAN). He is

also a member of International Research network of Children-in-Agriculture Programme (CYIAP)-Network and a member of Global Development Network (GDN). Prof. Adesoji has attended many academic conferences within and outside. Prof. Adesoji is also a non-stipendiary priest in the Anglican Communion.

Dr. A. F. Agboola

Dr. Abiodun Fafolarin, Agboola earned his B.Agric. (Hons.) from the Obafemi Awolowo University, Ile-Ife, Nigeria in 1991 where he also obtained his M. Phil. and PhD. degrees in 1999 and 2006, respectively. He is currently Senior Lecturer in the Department. His research interests are in the areas of Indigenous Knowledge and Sustainable Development He worked in collaboration with Boston University, Boston, United States of America, on comparative study of Yoruba Peasant Farmers of Southwestern Nigeria and Black Farmers of the East Coast of the United States. He is currently working on Sociology of Traditional Market, Land Tenure System and Traditional Diary Production. Dr. Agboola has attended academic conferences and workshops and has published in both local and foreign learned journals. He is a member of many professional associations, which include Rural Sociological Association of Nigeria (RuSAN), Nigerian Indigenous Knowledge Study Association (NIKSA), Agricultural Extension Society of Nigeria (AESON) and International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP-Network).

Dr. T. F. Ojo

Dr. Toyin Femi, Ojo obtained his B.Sc. (Ed.) Agriculture from the Bendel State University, Ekpoma, Bendel State, now Edo State, Nigeria. He thereafter proceeded to earn his M.Sc. in Agricultural Extension and Rural Sociology from the Obafemi Awolowo University, Ile-Ife, Osun State. He had worked with the Osun State Water Corporation, Ede, Osun State between 1993 and 1995. He later transferred his service to the Teaching Service Commission (TESCOM), Osogbo, Osun State where he served as a Tutor between 1995 and 2006. He was later appointed as an Assistant Lecturer at the Obafemi Awolowo University, Ile-Ife. He is currently a Senior Lecturer in the Department. His research interests are in communication in Extension for youths in rural development. Besides, his focus is on applying Geographic Information System (GIS) to Problem Solving in Agricultural Extension. Dr. Ojo is a fellow of the prestigious Hebrew University of Jerusalem, Israel. He is a registered member of such professional organizations as the International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP-Network), Agricultural Extension Society of Nigeria (AESON), and Rural Sociological Association of Nigeria (RuSAN). He has attended many academic conferences and has published well researched articles reputable journal.

Dr. Mrs. H.F.B Faborode

Dr. Mrs. Helen Folake Babatola Faborode graduated from the University of Ibadan in 1983 with a B.Ed. degree in Adult education. In 1986 she obtained her M.Ed. degree in Comparative Education/Curriculum Development from the University of Newcastle Upon Tyne, U.K. Dr. Mrs. Faborode is currently a Senior Lecturer in the Department of Agricultural Extension and Rural Development. Her research interests are in rural community development studies, dissemination of agricultural

research outputs and rural women and youth empowerment studies. She is a registered member of a number of professional bodies among which are the Rural Sociological Association of Nigeria (RuSAN), Agricultural Extension Society of Nigeria (AESON) and International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP-Network). She has attended many conferences, seminars and workshops. She has published articles on rural youth studies in reputable journals.

Dr. J. O. Ayinde

Dr. Julius Olatunde Ayinde obtained a Bachelor of Agriculture (Agricultural Extension and Rural Development) from University of Agriculture, Abeokuta, Ogun State (1999); M.Sc. (2006) and Ph.D.(2011) in Agricultural Extension and Rural Sociology from Obafemi Awolowo University, Ile-Ife, Nigeria. Before his appointment as an Assistant lecturer in the Department of Agricultural Extension and Rural Development of Obafemi Awolwo University, Ile-Ife in 2008, he served as Technical Assistant to the Supervisor of a Catholic-based NGO called Rural Development Project (RUDEP) in Osogbo between years 2000 and 2001, and appointed as an Assistant Lecturer at Osun State College of Education, Ila-Orangun, Osun State between years 2005 and 2008, where he rose to the post of Lecturer III. He is currently a Reader in the Department. His research focus is on youth studies, community development and food security/safety. He belong to many local and International professional associations among which are General Secretary International Research and Development Network of Children and Youth in Agriculture Programme in Nigeria (CYIAP-network); Member of Rural Sociological Association of Nigeria (RuSAN) Agricultural Extension Society of Nigeria (AESON), Agricultural Society of Nigeria (ASN), Association for International Agricultural and Extension Education (AIAEE), World Rural Development Group (RDG), Young Professionals for Agricultural Development (YPARD), International Rural Sociology Society (RSS) and Global Forum for Agricultural Advisory Services (GFRAAS) to mention few. He has won many travel and trainings grants and had attended several learned conferences/workshops/trainings locally and internationally with about 60 peers reviewed journals and proceedings publications to his credit in Nigeria, Botswana, Canada, Ghana, Romania, Republic of Benin, South Africa and United State of America to mention few. He has successfully supervised one M.Phil. and three M.Sc. students. Dr. Ayinde has served the Department, Faculty and University in many capacities.

Dr. V. O. Okorie

Dr. Victor Ogbonnaya Okorie holds a combined Ph.D. in Development and Anthropology, as well as an MA in Cultural Anthropology, from the University of wisconsin-Madison, United States of America. He also holds an MPhil in Agricultural Extension and Rural Sociology and an undergraduate degree in Agriculture from Obafemi Awolowo University, Ile-Ife, Nigeria. Dr. Okorie is a fellow of the World Academicy of Sciences (TWAS), Italy & Forschungsgemeinschaft Germany; a visisting scholar of the Goethe University of Frankfurt, Gerany; a visiting scholar of the University of Florida, Gainesville, United States of America; an Alumnus of the Brown International Advanced Research Institutes, Brown University, United States of America; a postdoctoral fellow of the International Social Science Council, Paris, France; a laureate of the Council for the Development of Social Science Research in Africa (CODESRIA); an alumnus of the African Peachbuilding Newtwork, a programme of the Social Science Research Council, New York, United State of America; and a posdoctoral fellow of the University of the Free State, South Africa. He is presently a Reader in the

department. Okorie's research interests cover youth and child lstudies, extension policies, community development; political economy of rural resources; conflict; and peace-building in agraran societies.

Dr. D.L.Alabi

Dr. Alabi, Dorcas Lola obtained Bachelor of Science (Hons.) degree in Home economics in the then University of Ife (now Obafemi Awolowo University), Ile-Ife, Nigeria, in 1986 and M.Sc. and Ph.D. in Agricultural Extension and Rural Sociology in 2005 and 2011 respectively from the same University. Before joining the service of the Department of Agricultural Extension and Rural Development as a Research Fellow 1 in 2015, she had worked with Osun State Agricultural Development Programme (1989-2015) as an Agricultural Extension officer and rose to the rank of Deputy Director. She is currently a Senior Research Fellow in the department. She is a member of professional associations such as Rural Sociological Association of Nigeria (RuSAN), Agricultural Extension Society of Nigeria (AESON), Family and Consumer Sciences Society of Nigeria (FACSSON) and International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP NETWORK) in Nigeria. Her research interests are in rural household development, rural entrepreneurship and agricultural value addition. She has successfully supervised one Ph.D., two M.Phil. and one M.Sc. students.

Dr. K. A. Adeloye

Dr. Kolawole Adelekan Adeloye obtained B. Agric., M.Phil. and Ph.D. in Agricultural Extension and Rural Sociology from the Obafemi Awolowo University, Ile-Ife in 2004, 2011 and 2016 respectively. Before his appointment as Lecturer I in the Department of Agricultural Extension and Rural Development, Obafemi Awolowo University Ile-Ife in 2018, he had worked with Osun State Local Government Service Commission (2006-2013) as an Agricultural Extension officer and rose to the rank of Senior Agricultural Extension Officer. He was appointed as Assistant Lecturer at the Wesley University Ondo in 2013 and left the University as a Lecturer II in 2018. He is presently a Senior Lecturer in the department. He belong to professional associations among which are International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP-network); Rural Sociological Association of Nigeria (RuSAN) and Agricultural Extension Society of Nigeria (AESON). He has attended many academic conferences, seminars and workshops. He has published articles in reputable local and international journals.

Dr. M. Famakinwa

Dr. Famakinwa Michael obtained Bachelor of Agriculture (Hons.) degree in Agricultural Extension and Rural Development Obafemi Awolowo University, Ile-Ife, Nigeria, in 2001 and M.Sc. and Ph.D in Agricultural Extension and Rural Sociology in 2012 and 2017 respectively from the same University. Before his appointment as Lecturer II in the Department of Agricultural Extension and Rural Development of Obafemi Awolowo University, Ile-Ife in 2018, he has worked with Osun State Local Government Service Commission (2006-2018) as an Agricultural Extension officer II and rose to the rank of Assistant Chief Agricultural Officer. He is presently a Lecturer I in the department. He is a member of professional associations such as Agricultural Extension Society of Nigeria (AESON), Rural Sociological

Association of Nigeria (RuSAN) and International Research and Development Network of Children and Youth in Agriculture Programme (CYIAP NETWORK) in Nigeria. He has attended many learned conferences, seminars and workshops. He has published articles in both local and international reputable journals.

Dr. (Mrs.) A. O. Opayinka

Dr. (Mrs.) Aanuoluwapo Oladipupo Opayinka (nee Ayodele) obtained her B.Agric. (Hons.) (2010), M.Phil. (2015) and Ph.D. (2018) in Agricultural Extension and Rural Sociology from the Obafemi Awolowo University, Ile-Ife. She joined the academic service of the University as a Lecturer II on 17th December, 2018. She was a Nuffic Orange Knowledge Programme Scholarship in 2022. Her interests are in gender issues in agriculture and rural community development, Innovation Platforms, evaluation of research and development programmes, value chain analysis. She also works on using appropriate research methods and analytical tools and softwares such as SPSS and ATLAS-ti for mixed research methods. She became an ATLAS.ti Qualitative Data Analysis consultant when she obtained her certificates from Berlin, Germany, first as a Student Trainer of the package in 2018 and as a Junior Professional Trainer in 2020. She has served as a resource person in some physical and virtual training workshops on the use of ATLAS.ti for data analysis. These include Training Workshop on Qualitative Data Analysis using ATLAS.ti at Agricultural Extension and Rural Development, Obafemi Awolowo University, Ile-Ife, Nigeria; in 2017 and at Agricultural Extension and Rural Development, University of Ibadan in 2018; Capacity Building on Qualitative Data Analysis using ATLAS.ti at Twenty-eighth Annual Conference of Rural Sociological Association of Nigeria (RuSAN) at Obafemi Awolowo University, Ile-Ife, Nigeria in 2019; Virtual Training Series on Qualitative Data Analysis using ATLAS.ti for the public in 2020; Virtual Training Workshop on Qualitative Data Analysis using ATLAS.ti for Nigerian Forum for Agricultural Advisory Services (NIFAAS) Foresight and Climate Smart Agriculture (CSA) in 2020; and Qualitative Data Analysis Training Workshop for Livestock Disease Surveillance Knowledge Integration (LIDISKI) project, at National Veterinary Research Institute, Vom, Plateau State, Nigeria, 2021. She is a member of professional associations such as Agricultural Extension Society of Nigeria (AESON), Rural Sociological Association of Nigeria (RuSAN) and Organization for Women in Science for Developing World (OWSD). She is currently a Lecturer I in the Department.

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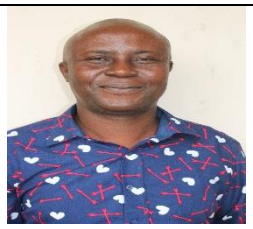
13	Dr. ALABI Dorcas Lola	B.Sc.; (Home Economics; M.Sc.; Ph.D. Rural Sociology	alabidorcas@yahoo.com	08062915547
14	Dr. ADELOYE Kolawole A	B. Agric.; M.Phil.; Ph.D.	kayoloyeng@yahoo.com: kolaadeloye@oauife.edu.ng	08062224790

15	Dr. FAMAKINWA Micheal	B. Agric.; M.Sc.; Ph.D.; Rural Sociology	famakinwamichael2013@gmail.com; mfamakinwa@oauife.edu.ng	07039530266
16	Dr. OPAYINKA Aanuoluwapo Oladipupo	B.Agric.; M.Phil.;Ph.D. Rural Sociology	aanytreasure@gmail.com; aopayinka@oauife.edu.ng	08168355211

Technical Staff

1.	 **Mr. J.A. Akinkunmi**	**H.N.D., PGD, MSc.**	**john.akinkunmi@yahoo.com**	**+2348101026867**
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Administrative Staff

1.	 Mr. O. O. Olaleye	Dip. In Business Study, Cert. in Electronic Data Processing, 50WPM	olaleyepastor@yahoo.com	+2348165995479
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3.	 Mrs. K. K. Daramola	Open Grading Test (35 w.p.m.) Diploma in Computer Training, O'Level	daramolakehind76@gmail.com	+2348067221243

Major Research Areas in the Department

i. Rural Group dynamics and leadership studies
ii. Adoption studies
iii. Communication in Extension
iv. Training in Extension
v. Extension administration
vi. Child and youth studies
vii. Programme planning in Extension
viii. Monitoring and Evaluation in Extension
ix. Indigenous knowledge studies
x Rural community development/community engineering studies
xi. Rural women and gender studies
xii Agro-Industrial Extension studies

Academic Programmes in the Department

The senate approved undergraduate academic programmes of the Department are as follows:

1. **B. AGRIC. (AGRICULTURAL EXTENSION AND RURAL DEVELOPMENT)**

The schemes of studies for the First Four Years of the Bachelor of Agriculture Programme are uniform for all Departments in the Faculty as indicated below:

First Year (Part I) Harmattan Semester

Course code	Course Title	L T P	Units
SE `	SE	4 0 0	4
MTH 105	Mathematics for Biological Science I	3 1 0	4
PHY 105	Physics for Biological Sciences I	3 1 0	4
PHY 107	Experimental Physics IA	0 0 3	1
CHM 101	Introductory Chemistry I	3 1 3	5
ZOO 101	Introductory Zoology I	3 0 3	3
ZOO 103	Introductory Zoology I (Practical)	3 0 0	1
			22

First Year (Part I) Rain Semester

Course code	Course Title	L T P	Units
SE	SE	4 0 0	4
MTH 106	Mathematics for Biological Science I	3 1 0	4
PHY 106	Physics for Biological Science II	3 1 0	4
PHY 108	Experimental Physics IB	0 0 3	1
CHM 102	Introductory Chemistry II	3 1 3	5
BOT 102	Form and Functions in Plant II	3 0 3	3
BOT 104	Form and functions in Plant II (Practical)	0 0 3	1
			22

Total Units = 44

Second Year (Part II) Harmattan Semester

Course code	Course Title	L T P	Units
SE 001	Special Elective	2 0 0	2
AEC 201	Introduction to Agricultural Economics I	3 0 0	3
AXD 201	Introduction to Rural Sociology	2 1 0	3
ANS 201	Anatomy and Physiology of		

	Farm Animals	2 0 3	3
CPP 201	Agricultural Botany	2 0 3	3
SLM 201	Agricultural Chemistry I	2 0 3	3
CSC 221	Introduction to Computer Science	3 1 0	2
			19

Second Year (Part II) Rain Semester

Course Code	Course Title	L T P	Units
SE (002)	Special Elective	2 0 0	2
AXD 202	Organization of Village Communities	2 1 0	3
AEC 202	Introduction to Agricultural Economics II	2 0 0	2
ANS 202	Introduction to Agricultural Genetics	2 1 0	3
ANS 204	Agricultural Chemistry II	2 0 3	3
ANS 208	Introduction to Fisheries and Wildlife	2 0 0	3
CPP 202	Principles of Plant Science	2 0 3	3
SLM 202	Principles of Soil Science	2 0 3	3
			22

Total Units = 41

Third Year (Part III) Harmattan Semester

Course Code	Course Title	L T P	Units
AEC 301	Statistics and Biometrics	2 0 3	3
AEC 303	Principles of Agricultural Economics I	2 1 0	3
AXD 301	Extension Teaching Learning Process and Methods	2 0 3	3
CPP 301	Agronomy of Arable Crops and Agro-climatology	2 1 0	3
CPP 303	Introduction to Agricultural Entomology	2 0 3	3
ANS 301	Non-Ruminant Animal Production	2 0 0	2
SLM 301	Introduction to Pedology and Soil Physics	2 0 3	3
			20
**AXD 309	Introducing Technological Change in Agriculture	2 0 0	2

** Taken by Students from Department of Agricultural and Environmental Engineering

Third Year (Part III) Rain Semester

Course code	Course Title	L T P	Units
AEC 302	Farm Management	2 1 0	3
AEC 304	Principles of Agricultural Economics II	2 1 0	3
AXD 302	Agric. Extension Strategies of Supporting Services	1 0 3	2
AGE 352	Agricultural Engineering I	2 1 0	3
CPP 302	Agronomy of permanent Crops and Agro forestry	2 1 0	3
CPP 304	Plant Pathology	2 1 0	3
ANS 302	Ruminant Animal Production	2 0 0	2
SLM 302	Soil Chemistry and Microbiology	2 0 3	3
			22

Total Unit = 42

Fourth Year (Part IV) Internship Year (Harmattan Semester)

Course code	Course Title	L T P	Units
AEC 401	Farm Accounts and Budgeting	1 0 3	1
AEC 403	Fisheries Management	0 0 3	1
AXD 401	On-Farm Demonstration	0 0 3	1
AXD 403	Training and Visit Extension	0 0 3	1
AXD 405	Agricultural Workshop Practices	0 0 3	1
ANS 401	Livestock Feed Production	0 0 3	1
ANS 403	Beef Cattle Management Practices	0 0 3	1
ANS 405	Rabbit Management Practices	0 0 3	1
ANS 407	Processing of Animal Products	0 0 6	2
CPP 401	Processing and Storage of Plant Produce	0 0 3	1
CPP 403	Management of Arable Crops	0 0 3	1
CPP 405	Greenhouse Operations	0 0 3	1
CPP 407	Field Plot Techniques	2 0 3	2
SLM 401	Soil Fertility and Plant Nutrition	0 0 3	1
SLM 403	Soil and Water Management	0 0 3	1
AGE 401	Agricultural Surveying	0 0 6	2
			19

Fourth Year (Part IV) Internship Year (Rain Semester)

Course code	Course Title	L T P	Units
AEC 402	Farm Management	0 0 3	1
AEC 408	Report Writing in Agricultural Economics	0 0 3	1
AXD 402	Extension Records	0 0 3	1
AXD 404	Agricultural Extension Strategies	0 0 3	1
AXD 408	Report writing in Agricultural Extension	0 0 3	1
ANS 402	Poultry Management Practices	0 0 3	1
ANS 404	Sheep and Goat Management Practices	0 0 3	1
ANS 406	Pig Management Practices	0 0 3	1
ANS 408	Report Writing in Animal Science	0 0 3	1
CPP 402	Management of Tree Crops	0 0 3	1
CPP 404	Plant Propagation	0 0 6	2
CPP 406	Nursery Practices and Vegetable Production	0 0 3	1
CPP 408	Report writing in Plant Science	0 0 1	1
SLM 402	Site/soil characterization (Pedology)	0 0 3	1
SOS 408	Report writing in Soil Science	0 0 3	1
AGE 402	Farm Mechanization Practices	0 0 6	2
AGE 408	Report Writing in Agricultural Engineering	0 0 3	1
AGR 400	Agricultural Practices Farm Practice	0 0 9	3
			23

Total Unit = 42

Fifth Year (Part V) B. Agriculture (Agricultural Extension and Rural Development)

Harmattan Semester

Course code	Course Title	L T P	Units
AXD 501	Diffusion of Innovations	2 1 0	3
AXD 503	Social Psychology in Extension	2 0 0	2
AXD 505	Extension Organization		

	and Supervision	2 1 0	3
AXD 507	Programme Planning in Extension	2 1 0	3
AXD 511	Agricultural Extension Communication Methods	2 0 3	3
AXD 513	Introduction to Research Methods	1 0 0	1
AXD 515	Agro-Industrial Extension	2 0 0	2
AEC 505	Agricultural Development and Policy	2 1 0	3
			20

Fifth Year (Part V) B.Agriculture (Agricultural Extension and Rural Development)

Rain Semester

Course code	**Course Title**	**L T P**	**Units**
AXD 502	Evaluation of Extension Programme	2 1 0	3
AXD 504	Group Dynamics in Extension	2 0 3	3
*AXD 506	Teaching of Agriculture	2 0 0	2
AXD 508	Rural Community Development	2 1 0	3
*AXD 510	Social Change in Agriculture	2 0 0	2
AXD 512	Organization of Rural Youth and Women	2 1 0	3
AXD 514	Final Year Research Project in Agricultural Extension and Rural Development	0 0 9	3
AXD 516	Agro-Industrial information Generation and Utilization	10 3	2
			19

***Elective Courses (Take one)**
Total Unit = 39

Minimum Unit required to Graduate = 214
The Grand Total Unit and/or minimum TNU for the award of B. Agriculture (Agricultural Extension and Rural Development) is as follows:
UME = 214
DE = 178

DESCRIPTION OF UNDERGRADUATE COURSES

AXD 201 - Introduction to Rural Sociology (2 – 1 – 0 (3 Units)

Definition and history of Sociology, Sociology as a Science; Definition and history of Rural Sociology; Importance of Rural Sociology; Similarities and differences between sociology and other social sciences. Basic models and concepts in sociology. Rural Social Organizations; Major Social Institutions; Rural-Urban Differentials; land tenure system; Rural Social Values and Norms; Diffusion of Innovation; Social Processes: Cooperation, competition, acculturation, accommodation, assimilation; Culture(definitions, characteristics, constituents).

AXD 202 -Organisation of Village Communities for Rural Development (2-1-0 (3 units)

Concept of community; social system (elements and processes); Settlement patterns and village organisations of major ethnic groups in Nigeria; Social groups and associations; Leadership in Rural Communities (Characteristics, types, functions, role of leaders in rural development and extension work); population and demographic characteristics of rural communities (eg. birth rate, death rate, migration, fertility, lifespan, life expectancy etc.,); Definition of Rural Development; Ba sic rural development concepts. Organizations for rural development in Nigeria; Rural natural resources and institutions; Rural Industrialization; Mobilizing Community People for Development.

AXD 301 - Extension Teaching/Learning Process and Methods (2-0-3- (3 units)

Meaning, philosophy (essentialism, pragmatism, constructivism, etc.), scope, process and principles of extension; Major concepts in extension such as administration, leadership, motivation, and sustainability; History of Extension in Nigeria; Planning and evaluation of extension programmes i.e. the need for principle of, process of, steps in planning, annual plan of work and calendar of work, and evaluation of extension programme; Communication in extension: Meaning, nature, and elements of communication process, principle of communication, and application of communication process in analyzing communication problems in extension; Extension teaching methods; meaning, classification and discussion of examples from different classes, indigenous extension teaching methods; Extension as an educational process: the meaning of the concepts of teaching, learning and motivation, steps in teaching, learning, and principle of teaching and learning, teaching of and learning by adults; Audio-visual aids for extension teaching: purpose of visual aids, preparation of audio-visual aids and presentation of teaching aid and ICTs in extension(e.g, artificial intelligence, etc.). Practical: Role play, visits to ministry of agriculture or model farm, Villages, Design, preparation and utilization of audio-visual aids, preparation and use of media resources and report writing.

AXD 302 - Agricultural Extension Strategies and Supporting Services. 1-0-3 (2 units)

Farm family extension: Meaning/Definition, problems and importance of gender, status- role of farm family units (e.g. Youth/Children, Men and Women) in extension; Definition, types and importance of local groups and local leaders in extension Programme; Extension supporting institutions: Research-Extension-Farmer-Input Liaison-Services (REFILS), Research Institutes, Agricultural Development Programme (ADP), Credit Institutions: Banks and Credit Co operations,

Input supply companies, Agro-allied industries, and Non-governmental Organizations (NGOs) and Community Based Organization (CBO); Extension and Rural Development Strategies in Nigeria. Practicals: Techniques of packaging agricultural innovations for farmers - voicing script writing, Agricultural news preparation and presentation.

AXD 401 - On Farm Demonstration (1-0-0 (1 unit)

Definition and features of on farm demonstrations; Types of and steps in on farm demonstrations; Case studies/example(s) from each), type; Practical on farm demonstration in crops (such as biofortified potato varieties and cassava) and beekeeping activities. Drama Presentation

AXD 402 - Extension Records 1-0-0 (1 unit)

Importance of record keeping in Extension; Type and classification of extension records; Example(s) from each of the classes; How and when to keep extension records. The use of ICT for record keeping in extension (eg electronic database, USB, Cloud storage etc.) Practicals: Students are expected to keep records of their farm activities in AXD401 and report the same in AXD402.

AXD 403 –Extension Supporting Institutions 1-0-0 (1 unit)

Extension supporting institutions: Research-Extension-Farmer-Input Liaison-Services (REFILS), Research Institutes, Agricultural Development Programme (ADP), Credit Institutions: Banks and Credit Co-operations, Input supply companies, Agro-allied industries, and Non-governmental Organisations (NGOs) and Community Based Organisations (CBO) International Organisations (FAO, The World Bank, WHO, UNDP, etc.)

AXD 404 - Teaching of Agriculture in Schools
Qualities of a good agricultural science teacher , steps in curriculum development. Characteristics of a good lesson plan, design, preparation and use of teaching aids and management of school farm. Students are expected to present agricultural teaching aids, model school farm and record keeping

AXD 405 - Agricultural Workshop Practice 1-0-0 (1 unit)

Orientation and General Safety measures; Purposes of Training in Agricultural mechanic; Steps in keeping a clean and orderly workshop; Purposes of the safety colour codes; Common tools used in Agricultural Workshop; and Steps to be taken involving accidents and first aid. Students should interact with various units in the agricultural workshop of the Teaching and Research Farm and document the tools in each unit *vis-a-vis* names, uses, safety measures and precautions.

AXD 408 - Report writing in Extension and Rural Development 1-0-0 (1 unit)

Concept of report writing; importance and structure of an extension report; classes of extension report and analysis of case reports. Practical: Students are expected to go for an excursion to any reputable farm within or outside Nigeria. The students are also expected to use the lessons learned in AXD 408 to write and submit a comprehensive report of the excursion experience.

AXD 501 - Diffusion of Innovations 2-1-0 (3 units)

Definition and elements of diffusion., Perspectives on diffusion in social change. The innovation decision process. Characteristics of innovations, Adoption rates and adopter categories. Opinion leadership. Change agents. Theoretical formulation on the diffusion of innovations. Research traditions on diffusion, generalizations from diffusion research in Nigeria.

AXD 502 -Evaluation of Extension Programme 2-1-0 (3 units)

The meaning and value of evaluation; Evaluation in extension education; The nature of programme to be evaluated and programme, characteristics; The process of evaluation: who evaluate, what depth of evaluation: Kinds or types of evaluation, and the process as a sequence of decisions; Evaluation Frame work: three major elements of evaluation: criteria, evidence, and judgment. A case study.

AXD 503 - Social Psychology in Extension 2-0-3 (3 units)

Concept of Psychology; Nature of Psychology; Fields of Psychology; Definition and characteristics of social psychology; Importance of social psychology to extension; Understanding psychological concepts in extension: Attitudes, Values, Beliefs, Mores, Folklores, Intelligence, Emotions, and Morals; Socialization: Process, Agents and Products; Personality Development; Practical: Case studies and implication for extension.

AXD 504 -Group Dynamics in Extension 2-0-3 (3 units)

Definition and distinguishing characteristics of group dynamics; assumptions in-group dynamics; importance of group dynamics in agricultural extension. The place of the individual in the group, motivation, blocks to participation in groups and adjustments to blocks. Group development; phases of group growth; internal and external dynamics of groups; selection, features and use of some group techniques; group evaluation; importance, features and techniques. Some studies in-group dynamics; analysis of some groups relevant to agricultural extension and Practical.

AXD 505 -Extension organization and Supervision (2-1-0 (3 units)

Meaning of Extension, administration , management and supervision; Historical development of Extension in Nigeria – the various organization models adopted up to date and emerging models; Principles of administration and supervision; Roles and responsibilities of various levels of extension and other relevant staff; Principles of morale and motivation and implications for extension administration and supervision.; Handling a personnel matters – staff development and promotion; Creating conducive working environment; disciplines, etc. Suggestions for improving Nigerian extension services.

AXD 506 -Teaching of Agriculture 2-0-3 (3 units)

Concept of teaching method, teaching technique and instructions materials; General principles or criteria for the selection of teaching methods; Levels of objectives; Special problems of agriculture in schools; Competences needed by a teacher of agriculture; Classroom management problem.; Experience in Micro teaching; Practical: Micro laboratory teaching and evaluation and Design and management of school farms.

AXD 507 - Programme Planning in Extension (2-1-0 (3 units)

Importance of programme planning in extension, introduction to the programme planning process; why programme planning in extension is difficult; steps in the programme planning process, principles of programme planning, some concepts relevant to programme planning such participation in programme planning, plan of work, calendar of work, overall programme.

AXD 508 - Rural Community Development (2-1-0 (3 units)
The theories of community; Community as a unit of social change; The micro and macro approaches to social change; Dimensions of innovations; Overview on the theories of development; Community development and other 'developments'; Approaches to community development. Case studies on community development in Nigeria and other African Countries; The future of communities in Nigeria.

AXD 510 - Social Change in Agriculture (2-1-0 (3 units)
Elements and processes of change; The nature of social change – planned and unplanned; Social structure and social differentiation; Measurement of change in rural Societies; Resistant and conducive forces to change in rural societies; Social movements and social change in contemporary Nigeria; The elements of social action; Social change and attitude change; Technological change in Nigerian Agricultural Development; Economic aspects of rural social change; Traditional institution and their transformations, e.g. family.

AXD 511 - Extension communication and Methods (2-0-3 (3 units)
Meaning and concept of communication and Extension; Communication process: Major, model or theory, Element of communication process; Principle of communication in extension, Relationship between communication, teaching-learning and adoption process in extension; Communication methods: classes of methods and their respective utilization, Audio-visual Aids in Extension Communication: Importance, design/preparation and utilization of Audio-Visual aids in Extension; Computer and Allied tools in Extension Communication; Practical: design, preparation and utilization of audio-visual aids and media resources, communication model building and role-playing.

AXD 512 -Organization of Youth and Women Programmes (2-1-0 (3 units)
Definition, roles, problems and importance of youth in Development; Youth development initiatives and programmes/projects; Youth development programmes (Review: formation, organization, method success and failure; Formation of Youth Clubs/Organization or group e.g. Young farmer club, 4 – H club etc. Youth development activities (both on and off farm); Youth Extension in grassroots development; Role and problems of women in Development; Women Development Programme (Review formation, philosophy, organization, success and failure); Participation of Youth and Women in Agricultural and rural development.

AXD 513 -Research methods (1-0-0 (1 unit)
Basic characteristics of science, scientific/research process, testing of hypothesis, sample and sampling techniques, data collections or survey methods, preparation, validation and reliability of data instruments, data analysis and report writing.

AXD 515 - Introductory to Agro-Industrial Extension (2-1-0 (3 units)
Definition and principle of agro-industrial relations; Functions or importance and characteristics of agro-based industries; Linkages between agro-based industries, extension and clientele; Packaging agro-based information and transfer to clientele; Visit to agro-based industries and report writing

AXD 514 - Research Method in Extension (Student's Project) (0-0-9 (3 units)
Final Year Research Project

AXD 516 -Agro-Industrial technology generation and utilization (2-1-0 (3 units)
Review of aims and objectives, operation and organization and products of Agro-Industrial related institutions for design and production of simple farm tools and equipments, e.g. National Centre for Agricultural Mechanization (NMCAN), Universities and faculties of Agriculture and Local Artisans. Industrial equipments and processing e.g. Federal Institute for Industrial Research (FIIRO), National Institute for Horticultural Research (NIHORT); Storage: National store product Research Institute (NSPRI). Processing National Institute for Horticultural Research (NIHORT), cocoa Research Institute of Nigeria (CRIN), International Institute for Tropical Agriculture (IITA) and National Institute for oil palm Research (NIFOR); Linkages of Agro-Industrial related Institutions with other organizations and publics; Industrial Information generation and packaging; Visit to the Agro-Industries and submission a report.

2. B.Sc. IN E- AGRICULTURAL EXTENSION AND COMMUNITY ENGINEERING

At the Special Senate meeting held on the 15th November 2018, of the Obafemi Awolowo University, Ile Ife, the proposal on Bachelor of Science (BSc) programme in E-Agricultural Extension and Community Engineering was approved to commence in the Department of Agricultural Extension and Rural Development in collaboration with the Centre for Distance Learning (CDL), Obafemi Awolowo University, Moro. The BSc programme is supported by the Sasakawa Africa Fund for Extension Education (SAFE).

Introduction to the Sasakawa Africa Fund for Extension Education (SAFE)
The Sasakawa Africa Fund for Extension Education (SAFE) is funded by the NIPPON FOUNDATION and established by the Sasakawa Global 2000 Agricultural Initiative, which was established by Dr. Borlaug, Mr. Ryoichi Sasakawa and former US President, Jimmy Carter. It is aimed at assisting extension officers and mid-career officers to pursue university degree programmes and consequently enhance their leadership positions in their countries.
The SAFE was established in 14 African countries. There are 4 Universities in Nigeria offering B.Sc. degree programmes in agricultural extension (SAFE). These are the Ahmadu Bello University, Zaria; Bayero University, Kano; University of Ilorin, Ilorin; and the Adamawa State University, Mubi.

Justification for the B.Sc. Programme in E-Agricultural Extension and Community Engineering

The rate of innovations generated from academic and research institutions are not commensurate with that reaching the community populace for adoption and consequent livelihood improvement. This gap is due to insufficient number (especially the females) and inadequate competence of extension personnel in Nigeria. Consequently, agricultural production and agrarian populace

livelihoods are below expectations. Furthermore, in the South West geopolitical zone of Nigeria, there are numerous graduates (ND/HND/Bachelor degrees) of institutions of higher learning currently engaged or interested in providing extension services. In addition, the poor road network and remote distance between agrarian communities and urban centres in Nigeria further hinders effective provision of extension and community engineering services. The findings from the needs assessment and stakeholders' meeting held on 10th April 2018 at Obafemi Awolowo University, as a preliminary to the commencement of Sasakawa Africa Fund for Extension Education (SAFE) also confirmed these challenges and recommended the need for a paradigm shift in agricultural extension services and community development curriculum that entails practical, demand-driven, technology-based and holistic approach which has been proved effective in attaining effective agricultural information dissemination and advisory services that promised sustainable community development; hence the adopted concept of e (electronic)-agricultural extension and community engineering.

Engineering is a multidisciplinary academic concept, and is found appropriate to achieving the goal of sustainable community development. Community Engineering is being offered in most Tertiary Institutions, especially in the developed countries such as University of Lucknow, SzentIstvan University of Hungary, just to mention a few. The community engineering track focuses primarily on the understanding of the current problems of sustainable community and agricultural development, approaches for collaborative and people-centred partnership in development, the planning, execution and monitoring and evaluation of development projects. It also focuses loss minimization after harvests, development and management of local/traditional markets, as well as logistics management and warehousing. The most special feature of the Community Engineering is the organization of frequent study trips to different scales of farms, municipalities and rural development agencies and projects within and outside Nigeria via internet and face-to-face contacts.

Hence, the proposed B.Sc. programme in e-Agricultural Extension and Community Engineering, which aim to enhance the extension career prospects, and improve the capacity for extension service delivery; thereby contributing to bridging the gap between research and agrarian community populace for sustainable food security, as well as sustainable community and national development.

Objectives of the SAFE Programme

(a) The overall objective of the programme is to produce University graduates of agricultural extension who are trained in various leadership and technical skills;

(b) The programme is specifically aimed at building the capacity of the candidates in development and usage of technology for electronic-extension science and community engineering; and

(c) Continually developing and implementing a curriculum that is demand driven for the production of skilled extension staff for the improvement of rural community through their involvement in Animal and Crop Production, Post-harvest Technology, Irrigation Agronomy, Food and Nutrition, other sectors in community development.

Target Candidates

The programme is targeted at training mid-career extension workers, and other interested candidates and graduates with ND/HND/Bachelor degrees in science fields from recognised institutions of learning, to become extension and community engineering scientists.

Course Duration / Admission Requirements

Four categories of prospective students are targeted:

a. Science-based ND and NCE Holders without Agricultural academic background (4 years) or Science-based ND and NCE Holders with Agricultural academic background (3 years)

The candidate must satisfy the following requirements:

i. be a serving agricultural extension worker or agricultural related/community development worker/self-employed with a minimum of 2 years post qualification (ND/NCE)experience;

ii. be recommended and sponsored by the employer; if self-employed- to be recommended by one of your post-secondary education Teachers;

iii. possess ND/NCE in agriculture or related field from any recognised institution; and

iv. Satisfy the University's minimum admission requirements of at least credit passes in 5 relevant subjects including English language and Mathematics in the West African School Certificate or its equivalence, at not more than two sittings.

b. Science-based HND Holders without Agricultural academic background (4 years) or Science-based HND Holders with Agricultural academic background (3 years)

The candidate must satisfy the following requirement:

i. be a serving agricultural extension worker or agricultural related/community development worker/self-employed with a minimum of 2 years post qualification (HND)experience;

ii. be recommended by and sponsored by the employer; if self-employed- to be recommended by one of your post-secondary education Teachers;

iii. possess HND in agriculture or related field from any recognised institution; and

iv. satisfy the University's minimum admission requirements of at least credit passes in 5 relevant subjects including English language and Mathematics in the West African School Certificate or its equivalence, at not more than two sittings.

c. Science-based First degree holders without Agricultural academic background (4 years) or Science-based First degree holders with Agricultural academic background(3 years)

The candidate must satisfy the following requirements:

i. be a serving agricultural extension or agricultural related/community development worker/self-employed with a minimum of 2 years post qualification experience;

ii. be recommended and sponsored by the employer; if self-employed-to be recommended by one of your post-secondary education Teachers;

iii. possess first degree in related field from any recognised institution; and

iv. satisfy the University's minimum admission requirements of at least credit passes in 5 relevant subjects including English language and Mathematics in the West African School Certificate or its equivalence, at not more than two sittings.

d. Transfer Students from Science-based First degree Programmes in any accredited University or certificate holders in Rural Development Studies, Extension Management and Administration / Agricultural Media Communication from Obafemi Awolowo University (4 years)

The candidate must satisfy the following requirements:

i. satisfy the University's minimum admission requirements of at least credit passes in 5 relevant subjects including English language and Mathematics in the West African School Certificate or its equivalence, at not more than two sittings; and

ii. have a minimum of 1.00 Cumulative Grade Point Average (CGPA).

- ***There will be competitive scholarship for female applicants***

Programme Areas of Specialization

The extension programme shall cover all the following areas:

i. Agri-business;
ii. Animal production and processing;
iii. Crop production and Protection;
iv. Food, Nutrition and Resources Management;
v. Postharvest Value Addition and Technologies; and
vi. Soil Conservation and Land Management.

These areas of specialization were recommended based on the stakeholders' demand.

Programme Duration

i. The programme shall be taught 70% online and 30% face-to-face contact basis.

ii. The last semester shall be for Supervised Entrepreneurship Projects (SEPs) for all the candidates.

Supervised Enterprise Projects (SEPs)

The first set of students admitted into the SAFE programme shall start their SEPs in 2019/2020 session

i. Each student shall identify a problem in Nigeria (or country of origin of the student) agrarian communities, under any of the options;
ii. Develop a proposal for intervention programme to solve the identified problem;
iii. Implement the approved proposed intervention programme;
iv. Evaluate and submit report on the intervention programme;
v. Each student shall have 3 supervisors (1 from the Department of Agricultural Extension and Rural Development, 1 from the subject matter field option and 1 university/ministry/industry-based extension professional responsible/covering/living/working within the locality where the SEP will be implemented, as a supervisor);
vi. The university/ministry/industry-based extension professional supervisor shall monitor the project frequently while the University supervisors shall visit the students' sites and assess their performance; and
vii. Grading shall be based on approved guidelines and template

Requirement for Graduation

A student shall earn a minimum of 117 course credit units and 12 credit units of Special Electives before graduating.

Curriculum and Course Structure

The following is the course outline for the B.Sc. in E-Agricultural Extension and Community Engineering. ***All courses are compulsory.***

***PART TWO**

Preliminary Year: First Semester

Code	Title	Credit Units
AXE 201	Introduction to Agricultural Extension	2
AXE 203	Principles of Rural Sociology	2
AXE 205	Leadership Skills	2
AXE 207	Introduction to Forestry Resource Extension and Management	2
AXE 209	Introduction to Agricultural Economics	2
AXE 211	Anatomy and Physiology of Farm Animals	2
AXE 213	Principles of Animal Production	2
AXE 215	Principles of Crop Production and Protection	2
AXE 217	Principles of Soil Science	2
AXE 219	Introduction to Human Nutrition and Diet	2
AXE 221	Introduction to Computer Science and its Application in	2

	Agriculture	
LIB 001	Library Instruction	
	Total Credit Units	**22**

Preliminary Year: Second Semester

Code	Title	Credit Units
AXE 202	Basic Farm Structures, Buildings and Housing Systems	2
AXE 204	Introduction to Entrepreneurship	2
AXE 206	Peace and Conflict Resolution	2
AXE 208	Environment and Sustainable Development	2
AXE 210	Introduction to Biotechnology	2
AXE 212	Introductory Agricultural Biochemistry	2
AXE 214	Crop Anatomy, Taxonomy and Physiology	2
AXE 216	Climatology and Biogeography	2
AXE 218	Fundamentals of Fabric and Clothing Construction	2
	Total Credit Units	**18**

***For science-based but non-agricultural background candidates with First degree, ND/NCE and Transfer Candidates from Science-based University degree.**

PART THREE

First Semester

Code	Title	Credit Units
AXE 301	E-Extension Methods, Tools and Models	2
AXE 303	E-Platforms for Participatory Agricultural Extension	2
AXE 305	ICT Compliant Community Engineering Principles	2
AXE 307	Social Change and ICT Compliant Community Engineering	2
AXE 309	Extension Strategies and Pilot Projects in Rural Development	2
AXE 311	Agricultural Production Economics	2
AXE 313	Ruminant and Non-Ruminant Production	2
AXE 315	Introduction to Fisheries, Aquaculture and Wildlife Management	2
AXE 317	Principles of Plant Breeding and Physiology of Crop Growth	2
AXE 319	Principles of Soil and Water Conservation	2
AXE 321	Meteorological Science and Weather Forecasting and Precision Agriculture	2
	Total Credit Units	**22**

Second Semester Module

Code	Title	Credit Units
AXE 302	Enhancing ICT Compliance of Community Engineering and Agricultural Innovation System (AIS)	2
AXE 304	Extension Programme Planning and Evaluation using ICT	2
AXE 306	Information and Communication Technology (ICT) in Extension	2
AXE 308	E-Tools and Techniques for Community Engineering	2
AXE 310	Building Sustainable Community Leadership and Organisation using ICTs	2
AXE 312	Systems Thinking for Changing Agriculture	2
AXE 314	Planning of Supervised Entrepreneurship Projects	2

AXE 316	Introduction to Development of E-Extension Apps I	2
AXE 318	Introduction to Agricultural Engineering and Farm Machinery	2
AXE 320	Communication in English	2
SE	1 Special Elective	2
	Total Credit Units	**22**

PART FOUR

First Semester

BASIC E-EXTENSION MODULE

Code	Title	Credit Units
AXE 401	Statistics and Research Methods in Extension and Community Engineering Science	2
AXE 403	Principles of Cooperative Practices for Community Engineering	2
AXE 405	Management of Extension Organizations and Programmes	2
AXE 407	Development of Agricultural Extension Training Materials	2
AXE 409	Extension and Community Engineering Professional Ethics	2
AXE 411	Policy Formulation and Analysis in Extension and Community Engineering	2
AXE 413	Risk Management and Adaptation in Advisory Services and Community Engineering	2
AXE 415	Gender, Youth and Vulnerable Issues in Agriculture	2
SE	2 Special Electives	4
	Total Credit Units	**20**

Second Semester

Code/Title	Module	Credit Units
1.AXE 402/Developing E-Extension Applications	1.E-Extension in Agriculture Concepts 2. Introduction to ICT Facilities and Equipment Operation and Maintenance 3. Introduction to Web2-4Devt in Agriculture 4. Information Sourcing and Packaging from E-Resources 5. E-Information Policy and Security 6. E-Agricultural Strategies, Agricultural Knowledge Management and Dissemination through Digital Library 7. Introduction to Digital Green and its Roles in E-Extension 8. Social Network Platforms and Tools for Sharing Agricultural Information	3
2. AXE 404/E-Postharvest Handling and Value Addition Technology Extension	1. Postharvest Physiology and Product Storage 2.Postharvest handling and Crop Produce Value Addition 3. Animal Products Value Addition; Fish Technology, Processing and Storage 4.Animal Products, Processing and Handling 5. Products Standardization, Value Addition and Standardization Technologies 6. Appropriate Packaging and Storage of Products	3
3. AXE 406/E-Agri-Business	1. Introduction to Farm Management 2. Agricultural business Management, Marketing and Price Analysis	3

Extension	3. Agricultural and Agribusiness Policy 4. Agribusiness Project Appraisal 5. Value chain approach in Agriculture 6. Financial Accounting in Agribusiness	
4. AXE 408/ E-Animal Production Extension	1. Animal Feed Resources and Feeding Principles 2. Poultry Production 3. Sheep and Goat Production 4. Animal Breeding 5. Beef and Dairy Production 6. Animal Experimentation and Research Techniques	3
5. AXE 410/ E-Crop Production and Protection Extension	1. Weed Science 2. Field Experimentation 3. Physiology of Crop Production 4. Micro- Propagation 5. Pesticides and their Application 6. Crop Entomology	3
6. AXE 412/E-Soil Conservation and Land Management Extension	1. Farm Design, Survey & Land Use Planning 2. Farm Machinery and Mechanization Practice 3. Soil and Water Management 4. Principles of Organic Farming 5. Introduction to Irrigation Agronomy 6. Soil and Crop Nutrition	3
Special Elective (SE)	1 SE	2
		20

PART FIVE
First Semester

Code/Title	**Module**	**Credit Units**
1. AXE 501/ Developing E-Extension Applications II	1. Using ICTs at Grassroots for Community Engineering: Digital Green 2. Use of Virtual Knowledge Network in Extension and Community Engineering 3. Providing e-Climate Change Knowledge Advisory to Farmers 4. Uses of Community Radio in Extension and Community Engineering 5. Harnessing Social Media for Agricultural Development and Community Engineering 6. Smart Phones Use and Management for Extension and Community Engineering 7. Developing Farmers Contact/Call Centers for Advisory Services and Community Engineering 8. Information Dissemination to Farmers by Use of Short Text Message and E-Mail 9. Responding to E-Mails, Calls and Short Messages from	6

	Farmers 10. Accessing Online E-Resources e.g. AGORA, OARE, etc. 11. Developing e-Training Materials for Farmers' Capacity Building 12. Developing e-Agricultural Apps for Precision Agriculture, e-Commerce, e-Agricultural Information Exchange and Communication	
2. AXE 503/E-Agri-Business Management Extension	1. Agribusiness Value Chain Analysis 2. Agribusiness Risk Management 3. Agribusiness Finance 4. Cooperative Development and Entrepreneurship for Agribusiness 5. Management information systems in Agri-enterprises	2
3. AXE 505/ E-Animal Production Extension	1. Fish Farming Techniques and Hatchery Management 2. Pasture & Range Management 3. Animal Health & Diseases 4. Ruminant Nutrition 5. Animal Products Processing & Handling	2
4. AXE 507/ E-Crop Production and Protection Extension	1. Seed Production Techniques 2. Forage and Fodder Crop Production 3. Farming Systems 4. Pests of Stored Produce 5. Use of Artificial Intelligence in Crop Diseases Management	2
5. AXE 509/ E- Soil Resources and Water Management Extension	1. Soil Tillage Concepts and Systems 2. Influence of Tillage on Edaphic Environment, Crop Production and Environmental Quality 3. Principles of Conservation Agriculture 4. Irrigation and Drainage 5. Soil and Water Management	2
6. AXE 511/ Developing E-Extension Application III	1. Developing E- Crop production and protection extension application 2. Developing E- Animal production extension application 3. Developing E-Soil Resources and Water conservation extension application	3
		17

Second Semester

Code/Title	**Module**	**Credit Units**
AXE 502/Developing E-Extension Application IV	Individual Hands-on in Development of E-Extension Apps IV	8
AXE 504/Supervised Entrepreneurship Project	Conduct and Supervision of SEPs	8
		16

COURSE CONTENTS/DESCRIPTION
PRELIMINARY SESSION
Curriculum and Course Structure
The following is course outline for the B.Sc. in E-Agricultural Extension and Community Engineering. All courses are compulsory.
***PART TWO**
Preliminary Year: First Semester

Course Code	Title	Course Description	Credit Units (LTP)
AXE 201	Introduction to Agricultural Extension	Meaning and Objectives of Agricultural Extension; history and organisation of extension services in Nigeria; qualities and roles of extension workers; selected extension methods and techniques; the extension process and method; extension teaching process; principles and philosophy of extension communication; extension teaching processes and learning; Gender inclusive agricultural extension.	2-0-0
AXE 203	Principles of Rural Sociology	Definition of Rural Sociology; Importance of Rural Sociology; Sociology as a Science; Social Organizations and Rural Social Organizations; Major Social Institutions; Rural –Urban Differentials; Rural Social Values and Norms; Diffusion of Innovation; Social Processes: Nature and Characteristics; Cooperation, competition, acculturation, accommodation, assimilation, etc Gender and Culture.	2-0-0
AXE 205	Leadership Skills	Leadership concepts; listening; conversation; emotional intelligence; breakthrough initiatives; gender and leadership; coaching and leadership; enrolment conversation; formation and leading of teams; Gender responsive leadership skills.	2-0-0
AXE 207	Introduction to Forestry Resource Extension and Management	The need for forestry extension; forestry extension in the world and in Nigeria; the institutional setting of forestry extension; basic concepts and principles of rural sociology to understanding of rural situation and conflict management; importance of rural communities and institutions; social stratification; social processes and social changes in rural communities; leadership and power structure in rural communities; roles and functions of rural leaders; development of rural community leaders; the extension agent and the rural community; communication techniques and strategies of change in rural communities; various agricultural extension teaching methods, aids and their uses in rural community development; Gender and forestry resource extension, allocation, utilisation, management and control.	2-0-0
AXE 209	Principles of Agricultural	The nature of economic and economic problems; Agricultural Economics Concept, Scope and Method,	2-0-0

	Economics	Price Theory and Functions of the Market with Particular reference to Agriculture; the concept of opportunity cost; supply and demand and their application to agricultural problems; production functions; cost analysis and functions; concept of elasticity; types of markets; perfect competition; monopoly; oligopoly, etc; [rice theory and some applications; theory of distribution, the components of agriculture in national economy; resource allocation on farms; aggregate income; expenditure; investment; interest rate; savings; employment; inflation; international trade; commodity agreements; balance of payments; money and banking; the economics of gendered agriculture	
AXE 211	Anatomy and Physiology of Farm Animals	Parts of the beef and dairy cattle, sheep, goats, pigs, rabbits and poultry; fundamentals of cell biology; anatomy and physiology of the cell, cell types; anatomy and physiology of animal tissues, nervous system, skeletal system, muscle, bone, circulatory, reproductive, digestive, special senses and other systems of farm animals; physiological functions of animals-homeostatic; nutrition and digestion, respiration; temperature regulation; excretion and reproduction; endocrinology; the blood and circulation; lactation, milk let down and egg production; water balance.	2-0-0
AXE 213	Principles of Animal Production	Animal production and its development; the livestock industry-problems and prospects; description of the breeds of cattle, sheep, goats, pigs, poultry and rabbits; systems of livestock production; feeding habit of farm animals; principles of breeding and livestock judging; general principles of management of the different types of farm animals; gender analysis of animal production value chain.	2-0-0
AXE 215	Principles of Crop Production and Protection	Crop production and its development; the principles, problems and prospects of crop production; importance of crop rotation; cultural practices; water and soil conservation; irrigation and drainage; general types and characteristics of arthropods; micro-organisms and other pests affecting crops; weeds and their effects on crop production, pests, diseases and weed control; basic Mendelian genetics; principles of crop production, harvesting, processing and storage; gender analysis of crop production value chain.	2-0-0
AXE 217	Principles of Soil Science	Soil, their origin and formation; physical properties of soil; soil moisture, air and temperature; soil classification and survey; soil colloids; soil reactions; soil organic matter and soil organisms; soil and water conservation; nutrient requirements and mineral nutrition of plants; introduction to fertilizers-organic and inorganic; gender	2-0-0

		and farmers' access to fertile soil.	
AXE 219	Introduction to Human Nutrition and Diet	Definitions of Nutrition and Food Nutrients; Classification of Nutrients(Carbohydrates, Proteins, Fats and oils, Vitamins, Minerals, Water); functions and food sources. Fuel factors of Energy Yielding Nutrients. Nutrient Intakes Guide or Dietary Guideline, Recommended Nutrient Intakes (RNI), Recommended Dietary Daily Allowances (RDA), Dietary Reference Intakes (DRI). Diet Planning Guide, Food Group Plans, Exchange Pattern. Metabolism of Nutrients. Anatomy of Digestive Tract, Process of Digestion, Digestion of Energy Yielding Nutrient. Absorption of Nutrients, Transportation of Nutrients. Roles of Nutrients in Body Function, Requirements, Deficiencies. Vegetarianism; gender roles in human nutrition.	2-0-0
AXE 221	Introduction to Computer Science and its Application in Agriculture	History of computer; characteristics and basic components of computer; functions of computer; word processing; spread sheet/data management; visual presentation; worldwide web and internet connectivity/access; computer applications. Computing and dissemination of information to farmers for community engineering; enhancing gender responsive computer application in agriculture.	2-0-0
LIB 001	Library Instruction		

Preliminary Year: Second Semester

Course Code	**Title**	**Course Description**	**Credit Units (LTP)**
AXE 202	Basic Farm Structures, Buildings and Housing Systems	Basic farm structures, properties and classification of land, soil evaluation, farm design and layout; farm buildings; green houses; dairy farm; structural and environmental requirements for crops, livestock, human, machinery and equipment housing systems; various types of crop storage structures: wooden silo, mud silo, brick silo, concrete silo, metal silo, corn crib, mud rhumbu, thatched rhumbu, etc; evaporative cooling structures for fruit and vegetable storage; farmstead planning and layout; gender symbols and farm housing systems; settlement patterns and village organisation in Nigeria.	2-0-0
AXE 204	Introduction to Entrepreneurship	Introductory entrepreneurial skills: relevant concepts: enterprise, entrepreneur, entrepreneurship, business, innovation, creativity, enterprising and entrepreneurial attitude and behaviour; history of entrepreneurship in Nigeria; rationale for entrepreneurship, creativity and innovation for	2-0-0

		entrepreneurs; leadership and entrepreneurial skills for coping with challenge; unit operations and time management; creativity and innovation for self-employment in Nigeria; overcoming job creation challenges; opportunities for entrepreneurship; forms of businesses; staffing, marketing and the new enterprise; feasibility studies and starting a new business; determining capital requirement and raising capital; financing planning and management; legal issues, insurance and environmental considerations; employability skills-interview techniques, oral presentation skills, etc. Principles guiding gender responsive entrepreneurship in Agriculture.	
AXE 206	Peace and Conflict Resolution	Basic concepts in peace studies and conflict resolution; peace as vehicle of unity and development; conflict issues; types of conflicts e.g. ethnic/religious/political/economic conflicts; root causes of conflicts and violence in Africa; indigene/settler phenomenon; peace building; management of conflict and security; elements of peace studies and conflict resolution; developing a culture of peace; peace mediation and peace-keeping; Alternative Dispute Resolution (ADR); dialogue/arbitration in conflict resolution; role of international organisations in conflict resolution, e.g. ECOWAS, African Union, United Nations, etc; Gender and conflict resolution; gender roles in Gender-based and domestic violence	2-0-0
AXE 208	Environment and Sustainable Development	Man- his origin and nature; man and his cosmic environment; scientific methodology; science and technology in the society and service of man; renewable and non-renewable resources- man and his energy resources; environmental effects of chemical plastics, textiles, wastes and other materials; chemical and radiochemical hazards; introduction to the various areas of science and technology; elements of environmental studies; gender roles in sustainable environmental development.	2-0-0
AXE 210	Introduction to Biotechnology	Historical developments, principles and applications of biotechnology; implications of molecular biology, including ethical and social controversies; introductory microbial biotechnology, agricultural biotechnology; biofuels; cloning; bioremediation; medical biotechnology; DNA fingerprinting and forensics; Gender responsive principles for development oriented biotechnology.	2-0-0

AXE 212	Introductory Agricultural Biochemistry	Pathways Chemistry of carbohydrates, lipids, proteins and nucleic acids; vitamins and their co-enzymes functions; minerals; the nature, classification and function of enzymes and hormones; Bioenergetics	2-0-0
AXE 214	Crop Anatomy, Taxonomy and Physiology	Parts of the crop cell types; introduction to plant taxonomy; characteristics, distribution, economic importance and local examples of leguminosae, gramineae, compositae, Dioscoreacea, Rutaceae,; development of cells and tissues; use of plant keys; cell biology; cell and cell types; comparative anatomy of major plant organs; seed dormancy and germination; development; mineral nutrition, growth regulation.	2-0-0
AXE 216	Climatology and Biogeography	The principles, aims and scope of climatology and biogeography; the elements and controls of climate and weather and the dynamics of the earth's atmosphere; radiation and heating of the atmospheric moisture, the dynamics of pressure and wind systems ; condensation and precipitation processes; seasonal variations in temperature, day length, radiation, rainfall and evapo-transpiration; equipment and maintenance of standard meteorological stations; the tropical climate; relation between agriculture and climate with reference to crops, livestock, irrigation, pests and diseases; gender issues in climatology and biogeography.	2-0-0
AXE 218	Fundamentals of Fabric and Clothing Construction	Yarn classification and processing; fabric construction/ fabrication (weaves, knitting, and other methods); fabrics identification and selection for garments construction; fashion producers and designing in clothing; basic clothing construction methods and garment embellishment; gender roles along fabric and clothing value addition and construction procedure.	2-0-0

***For science-based but non-agricultural background candidates with First degree, ND/NCE and Transfer Candidates of Science-based University degree.**

PART THREE

First Year: First Semester Module

Course Code	Title	Course Description	Credit Units (LTP)
AXE 301	E-Extension Methods, Tools and Models	Introduction to e-extension methods and tools; features of appropriate e-extension methods and tools for disseminating information; selecting appropriate e-extension methods and tools for rural advisory	2-0-0

		services and community engineering; SAA Model; T& V Model, etc; Gender integration into e-extension methods, tools and models.	
AXE 303	E-Platforms for Participatory Agricultural Extension	Types of e-platforms; Overview of the concept of participation; individual, group, and mass methods of extension; leadership patterns; major participatory approaches; agro ecosystems analysis; farmer participatory research, farming systems research/extension, participatory action research, participatory rural appraisal, participatory technology development, and rapid rural appraisal; strength and weaknesses of each approach, and the implications for extension programmes; comparative analysis of traditional and participatory research approaches; methods of participatory monitoring and evaluation; approaches to privatization of extension services; experiences, lessons and opinions on privatization of extension services; conventional and non-conventional means of information dissemination; principles of adult learning; motivation and participation for adults in extension programs; continuing education; teaching materials appropriate for adult; extension organization; Features of gender responsive e-platforms.	2-0-0
AXE 305	ICT Compliant Community Engineering Principles	Principles of ICT compliant community engineering; procedures and features of ICT compliant community engineering; Principles guiding gender responsive ICT for community engineering; practicals.	1-0-3
AXE 307	Social Change and ICT Compliant Community Engineering	General sociological theory; basic sociological concepts, theories of social change and their potential for community engineering; types of social change, factors conductive and resistance to change; opinion leadership, change agent roles; rural development, issues and processes of local empowerment; economic aspects of social change; Gender and group dynamics; traditional institutions and their transformation; objectives, strategies and integrated approaches; concept of community engineering; community engineering procedures; enhancing effective community engineering for sustainable development; educational processes, structure, and function in rural society; facilitating collaboration and linkage among the extension, research and the community; identifying locally available resources, (human capacities, indigenous knowledge, locally produced technologies); selected case studies.	2-0-0
AXE 309	Extension Strategies and	Background assumptions; definition of pilot projects; advantages and disadvantages of establishment of	2-0-0

	Pilot Projects in Rural Development	gender responsive pilot projects; definition of rural development; strategies of rural development including community driven development (CDD); integrated rural development with coverage of different problem areas; social inclusion of all groups in community, community entrance and engagement; rural community outreach/field trip and report writing.	
AXE 311	Agricultural Production Economics	Theory and principles of agricultural production with respect to resource use, resource allocation, resource and product/enterprise combination; forms of production functions and their characteristics; response analysis; measurement of resource productivity; Gender analysis of agricultural production economics.	2-0-0
AXE 313	Ruminant and Non-Ruminant Production	Classification and place of swine, poultry and rabbit in livestock industry; description of various breeds of swine, poultry and rabbit in Nigeria; General principles of swine, poultry and rabbit production and management; special emphasis on practical applications of feeding, housing, health, breeding and reproduction to the management of these classes.	2-0-0
AXE 315	Introduction to Fisheries, Aquaculture and Wildlife Management	The important fishes and wildlife of West Africa with emphasis on Nigerian species; classification, evolution, morphology and basic structure of fishes; the adaptation of fishes to aquatic life; life cycle of principal species of fishes and wildlife; significance of fishes and wildlife in the diet of Nigerians; the fish and wildlife industries in Nigeria; fundamental principles of fish and wildlife management and production; Design of paddocks, animal houses and cages; Husbandry techniques and health care in captivity; Bee keeping; Wildlife conservation.	2-0-0
AXE 317	Principles of Plant Breeding and Physiology of Crop Growth	History of genetics and historical perspectives and fundamental aspects of plant breeding; centres of origin and diversity of crops; variation in plants; qualitative and quantitative inheritance; heritability; genetic variability; penetrance and expressivity; pleiotropism; chromosomal variation; modes of reproduction of self-and cross-pollinated crops; genetic basis of cross- and self –fertilized crops; methods of developing improved varieties of crops – self-pollinated and asexually propagated crops; hybrid vigour; combining ability. Concept of growth analysis (leaf area index; crop growth rate; relative growth rate; net assimilation rate; leaf area ratio; leaf area duration); potential production of herbage crops; plant growth regulators,	2-0-0

		their properties, classification and uses; effect of environmental factors on dry matter production; physiology of grain yield; source-sink relationship; gender integration into plant breeding.	
AXE 319	Principles of Soil and Water Conservation	Hydrologic cycle and measurement of its components (precipitation, evapotranspiration, surface run-off, etc); rainfall-run-off relationship; flow dynamics; soil water balance; hydrographs; management of ground water and uses; water harvesting techniques;, conservation of water in the soil; tillage effects on soil and crop; erosion, its estimation and prediction; extent of erosion hazards in Nigeria and review of control measures; Gender analysis of adoption of soil and water conservation practices among farmers.	2-0-0
AXE 321	Meteorological Science and Weather Forecasting and Precision Agriculture	Introduction to meteorological science, weather forecasting and precision farming; their potentials and uses in e-extension, agricultural development and community engineering; Gender mainstreaming in meteorological science and weather forecasting.	2-0-0

Second Semester Module

Code	Title	Course Description	Credit Units (LTP)
AXE 302	Enhancing ICT Compliance of Community Engineering and Agricultural Innovation System (AIS).	Concept of community engineering and agricultural innovation system; elements of agricultural innovation system; Features of ICT compliant community engineering and agricultural innovation system; roles of ICT in Adoption of Innovation and community engineering; Changes in rural farming/livelihood and their implications; the position of extension in the AIS; Extension Advisory Service (EAS) providers and their roles; Global Forum for Rural Advisory Services (GFRAS) principles and their effects on EAS capacity development; New roles and capacities in the EAS.	2-0-0
AXE 304	Extension Programme Planning and Evaluation using ICT	Principles of extension programme planning and evaluation; Stages of programme planning; Types of evaluation; tools for gender responsive programme planning; effective Monitoring and Evaluation of extension programme; Uses of ICT in Extension programme planning and evaluation.	2-0-0
AXE 306	Information and Technology Communication (ICT) in	Concept of ICT; Gender and ICT in extension; Types of ICT; Significance of ICT in Extension; integrating ICT into extension and advisory services; e-extension; Nature and Elements of	2-0-0

	Extension	Communication Process, definition, theories and processes, barriers and models for effective extension communication; principles and practices of formal speaking; skill development for chairing meetings; assessing audience interests and concerns; giving and receiving feedbacks; role and involvement of rural people in extension programme development, execution, evaluation; role and strategies for extension demonstrations; practices in designing and implementing demonstrations; evaluating effectiveness of various extension methodologies and media; role of audio, visual and audio-visual aids in extension communication.	
AXE 308	E-Tools and Techniques for Community Engineering	E-Tools and techniques for implementing gender inclusiveness, the role of ethics in community engineering, planning health promotion programs, seeking funding for community development, facilitating community development practice: how learning happens with particular attention on assumptions and theories about how adults learn; e-extension as a tool for community engineering.	2-0-0
AXE 310	Building Sustainable Community Leadership and Organisation using ICTs	Concept of community leadership; gender and community leadership structure; leadership power structure; types of community leader; identification of community leaders and their roles; emergence of community leaders; community organisation; sustainable community leadership and organisation; building community leadership and organisation for sustainable community development.; use ICT in enhancing organised, communication and leadership skills, use of ICT for building successful partnerships in community leadership.	2-0-0
AXE 312	Systems Thinking for Changing Agriculture	Evolution of systems thinking as a field of study: basic definitions of systems, systems theory, system thinking, systems principles, systems tools); the systems thinking approach; use of systems thinking; systems thinking in organizations, organizations as open systems; five disciplines of systems thinking; some applications of systems theory; inquiry and advocacy; chaos theory. The course is also intended to provide students with critical thinking skills to broaden their perceptions to alternative ways of envisioning agricultural development. it is meant to modify preconceived myths that extension agents have about farmers and expose them to the basic assumptions underlying	2-0-0

		farmers' decisions and behaviours.	
AXE 314	Planning of Supervised Entrepreneurship Projects	Principle and practice of supervised entrepreneurship project (SEP) in agricultural; continued application of theories of experienced learning and the practical training approach to learning; project decision making models for conducting need assessment, market analysis, for an agricultural or agribusiness enterprise.SEP proposal conceptualization and writing; fundamental of loan application and processing; assessing information technology, and resources planning, implementing, monitoring, and evaluating; Students will implement their approved SEPs during the following semester and long vocation period for 5 -6 months.	2-0-0
AXE 316	Introduction to Development of E-Extension Apps I	Types of e-applications; uses of e-application in extension and advisory services; introduction to computing and computer accessories.	2-0-0
AXE 318	Introduction to Agricultural Engineering and Farm Machinery	Farm machinery types; implements and their capacities. Farm machinery and farm power needs and maintenance; field tours; Aims and objectives of Agricultural Mechanization. Basic Mechanics, workshop tools, principles of internal combustion engines and electric motor. Study of farm machinery used for tillage, ploughs, harrows, cultivators, farm power transmission system. Harvesting and processing Equipment, sprayers and dusters. Equipment of livestock (automatic feed conveyer, automatic drinkers for poultry, feeding and watering equipment. milking and milk handling equipment, meat processing equipment). Water lifting and irrigation equipment, servicing instrument used on the farm. Operating principles, selection and maintenance procedures of farm machinery. Farm machinery costing and records, workshop and building materials used on farm; Agricultural engineering and farm machinery; extension of agricultural engineering innovations and technologies to farmers; contributions and roles of agricultural engineering in community engineering.	2-0-0
AXE 320	Communication in English	Appropriate and effective use of English language in communicating information to farmers.	2-0-0
SE	1 Special Electives	Any Special electives offered outside the Faculty.	2-0-0

PART FOUR
First Semester (20 units)
BASIC E-EXTENSION

Course Code	Course Title	Course Description	Credit Units (LTP)
AXE 401	Statistics and Research Methods in Extension and Community Engineering	Conducting Qualitative and quantitative research; Appropriate research design and techniques for sustainable community engineering; Defining a research problem; developing hypothesis and objectives; principles of research design; question naïve preparation and collection of data, measurement and data collection; statistical theory; different statistical methods for handling data; presentation of research findings in narrative, tabular and graphical forms; Geo-statistics.	2-0-0
AXE 403	Principles of Cooperative Practices for Community Engineering	Theory of gender inclusive cooperatives; concept of social capital, type of cooperatives; formation of cooperative (basic steps); purpose and advantage of cooperatives; nature of cooperative business; cooperative and other form of business; community-based organizations (CBOs) and non-governmental organizations (NGOs); concept of sustainability; principles and operation techniques essential for successful and sustainable cooperative activity; management of cooperative problems and prospects of cooperatives.	2-0-0
AXE 405	Management of Extension Organizations and Programmes	Historical development of psychology; basic psychological concepts and definitions; human behaviour; motive and need; attributes of human being; meaning and concept of teaching, learning, emotion and motivation; steps and principles of teaching and learning ; Principles of adult learning; motivation and participation for adult in extension programme; formal, informal and non formal education; measurement of attitude; Natural Resource management; problems of urbanization, unplanned growth and general detritions of the natural environment; basic principles of gender inclusive environment planning and natural resources management' population studies including migration and refugees; social process (competition, cooperation and conflicts); conflicts resolution; farmer, pastoralist relation; preservation of Nigerians agriculture land; land tenure system; policy issues related to nature/ resources use; case studies.	2-0-0
AXE	Development of	Preparation of gender responsive e-extension	2-0-0

407	E-Agricultural Extension Training Materials	materials; guide sheet, handouts, modules, newsletters, audio, visual sound recording, video, photography, transparencies, slide, posters, flip chart, and extension report; identifying audience objective and needs; utilizing locally available materials, pre-testing, modifying, retesting, production, and distribution process; evaluating effectiveness of extension materials.	
AXE 409	Extension and Community Engineering Professional Ethics	Historical background of extension service and community development profession in Nigeria; the concept of community social engineering; gender integration into community engineering procedure; social engineering procedure in agrarian community, Identifying personal style; human resource management-human resource management functions, legal implications of human resource management; coordination and control in agricultural extension management; organisational control-the control process, principles and barriers to coordination; management information systems; basic information system concepts; working with management information systems staff; monitoring and evaluation-monitoring for effective management, evaluation for effective management.	2-0-0
AXE 411	Policy Formulation and Analysis in Extension and Community Engineering	Critical review of Nigeria's policy environment in community development using relevant case studies; steps in policy formulation with a strong emphasis on research-based policy formulation and evaluation; roles of local policies in community engineering; gender responsive and gender inclusive agricultural policy formulation and implementation	2-0-0
AXE 413	Risk Management and Adaptation in Advisory Services and Community Engineering	Introduction to risk and risk management; understanding risk and uncertainty; risk identification, measurement, analysis and evaluation; understanding adaptation in the context of climate change; understanding climate science; climate change and agriculture; climate change and socio-economics; climate change and health; adaptation planning and implementation approach; procedure for alleviating gender specific risks in advisory services and community engineering.	2-0-0
AXE 415	Gender, Youth and Vulnerable Issues in Agriculture	Gender definition, concepts and structuring; gender considerations in development; gender participation in development; gender analysis; gender mainstreaming; meaning and philosophy	2-0-0

		behind rural work, rural youth clubs/work in global perspective; guidelines for involving youth in agricultural extension; the concepts and definitions of vulnerable groups and vulnerable groups and vulnerable gender; vulnerable and youth issues in Agriculture; role of women and youth in agricultural development; poverty and gender inequality; women's access to agricultural extension services; interest and involvement in economic activities; gender, vulnerable youth issues in the planning, implementation and evaluation of programmes.	
SE	2 Special Electives	Any Special electives offered outside the Faculty	4-0-0

Second Semester (18 units)

Code/Title	**Module**	**Description**	**Credit Units (LTP)**
1.AXE 402/Developing E-Extension Applications I	1. E-Extension in Agriculture Concepts	Understanding the concept of e-extension; best practices in gender responsive e-extension in agriculture; Significance of e-extension in Nigeria Extension and Rural Advisory system, mainstreaming e-extension into Nigeria Extension and Rural Advisory system.	3-0-0
	2. Introduction to ICT Facilities and Equipment Operation and Maintenance	Concept of ICT; Features of gender inclusive ICT; Types of ICT facilities and equipment; Uses of ICT in extension and rural advisory services; Operation and maintenance of ICT facilities and equipment; Factors influencing gendered digital gaps.	
	3.Introduction to Web24Devt in Agriculture	Concept of Web24Devt; Importance of Web24Devt in extension and rural advisory services; Adoption of Web24Devt tools for information dissemination in agriculture; Integrating gender concerns and issues in Web24Devt in Agriculture.	
	4.Information Sourcing and Packaging from E-Resources	Concept of e-resources; Strategies for information sourcing from e-resources; strategies for information packaging from e-resources; disseminating information from e-resources to farmers; Removing Gender ceilings and walls in information sourcing and packaging from e-resources.	
	5.E-Information Policy and Security	Types of e-information policy; concept of e-information security; implications of e-information policy and security for agricultural extension and	

		rural advisory services and community engineering; Gender issues in e-information policy and security.	
	6.E-Agricultural Strategies, Agricultural Knowledge Management and Dissemination through Digital Library	Types of e-agricultural strategies; concept of agricultural knowledge management; concept of digital library; strategies and procedure for agricultural knowledge management and dissemination through digital library; harnessing women's and men's local knowledge for sustainable agricultural development.	
	7.Introduction to Digital Green and its Roles in E-Extension	Demystifying the concept of "digital green"; significance of digital green in e-extension; Gender inclusive management of digital green for community engineering.	
	8.Social Network Platforms and Tools for Sharing Agricultural Information	Types of social network platforms and tools in agriculture; using social network platforms and tools for agricultural information sharing; gender integration into social network platform; enhancing gender equal participation on social network platform by farmers.	
SE	3 Special Electives	Any Special electives offered outside the Faculty	6-0-0

Code/Title	**Module**	**Description**	**Credit Units (LTP)**
2. AXE 404/E-Postharvest Handling and Value Addition Technology Extension	1. Postharvest Physiology and Product Storage	Storage life and harvested fruits, seeds, vegetables and flowers; tropical environment in relation to maturity, ripeness and senescence. Physical and chemical indices of quality in fruits, seeds, vegetables, flowers and other crop products. Storage of crop materials. Traditional methods of vegetable processing and storage. Fundamentals and principles of crop storage and transportation. Storage and shelf-life problems; ideal temperature for storage of fruits, seeds, vegetables, flowers and other crop products. Controlled environment for transit and long term storage; protective treatment, design and operation of equipment for storage and preservation; Features of gender responsive postharvest technologies; gender analysis along value addition chain in agriculture.	3-0-0
	2.Postharvest handling and Crop Produce Value Addition	Importance and strategies of postharvest crop handling in agriculture. Postharvest physiology of farm produce; influence of production practices and technology-Harvest, handling and processing of agricultural produce; traditional and modern	

		technologies of storage. Storage methods and structures; pest management for storage; food processing and preservation of major types of food products; gender roles in postharvest handling.	
	3. Animal Products Value Addition; Fish Technology, Processing and Storage	Types of value additions on animal products; selecting appropriate and cost effective value addition for animal products along production chain; Methods of assessing and selection for quality; fish spoilage agents; mechanism and theory of fish killing, clearing, salting, freezing, smoking, drying, irradiation techniques and canning; fish storage technology; organization for quality control and official inspection; gender roles along major animal products value addition; practicals.	
	4.Animal Products, Processing and Handling	Preparing animal for slaughter, evisceration and dressing, care of carcass, cutting of carcass and care of hides & skin. Processing and storage of meat. Milk microbiology and processing of by products: Butter, cheese and whey. Effects of cooling on egg quality, grading, marketing and distribution of animal products. Practicals: Students should be exposed to the abattoir and meat shops and gender analyse activities involved in major animal products processing and handling.	
	5. Products Standardization, Value Addition and Standardization Technologies	Concept of product standardization; significance of product standardization; procedure of product standardization; Concept of value additions; types of value additions along agricultural production value chain; principles of value addition and standardization of agricultural products; value addition technologies and their characteristic features; Tropical environment in relation to maturity, ripeness and senescence; storage life of harvested fruits, seeds, vegetables and flowers; physical and chemical indices of quality in fruits, seeds, vegetables, flowers and other crop products; traditional methods of vegetable processing and storage; fundamentals and principles of crop storage and transportation; storage and shelf life problems; ideal atmosphere for storing fruits, seeds, vegetables, flowers and other crop products; controlled environment for transit and long-term storage; protective treatment, design and operation of equipment for storage and preservation; gender integration into products standardisation	
	6. Appropriate Packaging and	Concept of gender responsive and appropriate packaging; significance of appropriate packaging	

	Storage of Products	of agricultural products; packaging and life shelve of agricultural products; Food processing: equipment for cleaning raw materials, grading, heat exchange, evaporating, drying, separating, disintegrating, mixing, material handling; fresh fruits and vegetables, post-harvest treatments and shelf life; grain storage, storage structures. Definition of storage; controlled conditions of storage; storage potentials (organs of survival, edible reproductive parts, fresh fruits and vegetables); factors affecting storage life of vegetables and fruits (temperature, water loss, mechanical damage, decay in storage); post-harvest factors that influence decay; storage structures (ventilated structures, clamps, other simple storage methods, refrigerated and controlled atmosphere storage). Post-harvest treatments (special uses, curing, inhibition of sprouting, fungicide application and application methods).	

Code	**Module**	**Course Description**	**Credit Units (LTP)**
3.AXE 406/E-Agri-Business Extension	1. Introduction to Farm Management	Farm management concept; principles of effective farm management; indicators of gender sensitive, good and effective farm management.	3-0-0
	2. Agricultural business Management, Marketing and Price Analysis	The scope of Agricultural Business and management. Types of Agricultural Business management and organizations. Management, Accounting, Production planning; Public Policies affecting growth of Agricultural Business; Organisation of large-scale Farms; Legal organisation and tax strategies. Economics of Agricultural processing. Financial Control, Case Studies of Agricultural Business in Nigeria; gender and agricultural business management, marketing and price analysis.	
	3. Agricultural and Agribusiness Policy	Principles of gender responsive Agricultural and Agribusiness best practices; regulations and rules for planning and establishment processes of agricultural and agribusiness enterprises; Policy setting process; the agricultural and agribusiness framework; stakeholders analysis; sustainable natural resource management regulations; food security and nutrition; food safety and food quality	

		standards; compliance with statutory regulations; marketing and trade in agricultural and agribusiness commodities; agricultural and agribusiness credit access and management; agribusiness ethics.	
	4. Agribusiness Project Appraisal	Characteristics of Agricultural projects. Gender integration in the Project cycles. Theory, procedure and data requirements for feasibility reports. Appraisal and evaluation of Agricultural projects and programmes; Measures of investment worth. Cost-benefit analysis. Cash flow procedure and Farm evaluation. Case studies in Agricultural Project Appraisal and evaluation.	
	5. Value chain approach in Agriculture	The concept of value chain approach in agriculture, importance of value chain approach to private sector-oriented agriculture. Opportunities and challenges of the approach; selection and mapping value chains. Constraints and opportunities; development of intervention strategies. Methodologies and tools relevant for developing the competitiveness of value chains. Strategies for implementing, monitoring and evaluating chains.	
	6. Financial Accounting in Agribusiness	The purpose of accounting; types of record books; double entry book keeping, accounting conventions; The accounting equation and accounts of sole traders, partnerships, limited companies, depreciation, bad debts, provision for bad debts, accruals, prepayments, and statements and statements; balance sheet.	

Course Code/Title	**Module**	**Course Description**	**Credit Units (LTP)**
4.AXE 408/E-Animal Production Extension	1. Animal Feed Resources and Feeding Principles	Classification of feeds, feeding stuffs, concentrate feeds, cereals, legumes and oil seeds; chemistry and nutritive values of some Nigerian grasses and legume species. Storage and quality control of feeding stuffs and feeds. Adaptation and botany of indigenous and introduced pastures and forage plants. Characteristics of grasses, legumes and shrubs. Pasture establishment, seed production and utilization; Maintenance of permanent and temporary pastures; range management, forage conservation; dry season feeds.	3-0-0
	2. Poultry Production	The poultry industry and its economic importance in Nigeria. Production of broiler chicken, eggs,	

		turkeys. Poultry housing, equipment and other facilities. Care of the hatchery, incubators, hatchable eggs and day-old chicks. Some diseases and control measures; vaccines and vaccinations schedule. Processing and marketing of poultry products. Farm bio-security.	
	3.Sheep and Goat Production	**S**heep and goat production in Nigeria. Breeds, distribution, production systems. Reproduction, nutrition and feeding, flushing, steaming up; creating wealth for the poorest of the poor-the rural women through sheep and goat production.	
	4. Animal Breeding	Selection methods, sex determination, formation stock in livestock production, Breeding and selection of beef and dairy cattle, record of performance tests; Breeding and selection in poultry formation stock in poultry production, improvement of sheep and goats, gene-mutation and lethal genes, statistical tools for studying inheritance, genetic variance and co-variance.	
	5. Beef and Dairy Production	Beef and Dairy cattle industries, Housing, Feeding and management practices. Equipment and rearing of the Calves, growing and finishing operations. Determination of weight, carcass quality and grading. Milk production, storage, and products of milk, preservation and marketing.	
	6.Animal Experimentation and Research Techniques	Techniques and procedures in animal experimentation, statistical designs in animal science research problems, test of significance, correlation and regression analysis, etc. Humane care, handling and use of experimental animals.	

Course Code/Title	**Module**	**Description**	**Credit Units (LTP)**
6.AXE 410/E-Crop Production and Protection Extension	1. Weed Science	Characteristics, classification and biology of weeds. Effects of weeds on crop plants, major weeds of cultivated land, pastures and gardens, aquatic weeds. Physiology of weeds, crop/weed/fertilizer relationships. Methods of weed control and associated problems. Classification, chemistry, selectivity, formulation, application of herbicides, mode of action of herbicides. Application equipment and techniques. Practical methods of controlling weeds in Nigerian farming systems. Herbicides and environmental safety. Practicals: Identification of major weeds. Application equipment and their use, dosage	3-0-0

		calculation, calibration of sprayers, visit to fields, preservation of weed specimens.	
	2.Field Experimentation	Principles of gender responsive field experimentation in crops and soil sciences. Research methodology; experimental layout, field survey; normal distribution and sampling; measurements and data results.	
	3. Physiology of Crop Production	Water, light, temperature and gases as factors of environment, growth phases and rhythms in crop assimilate partitioning in relation to yield determination, crop geometry, cultural manipulation, plant growth regulators in crop production. Photo-periodism and vernalization in crop and their effects on crop introduction and production.	
	4.Micro-Propagation	Principles and techniques of sexual and asexual propagation with special reference to indigenous fruits, vegetables and ornamental plants; importance and classification of tropical and subtropical annual flowering plants, ornamentals and perennial flowering plants; principles of landscaping, landscaping of public parks and institutions, establishment and maintenance of hedges and lawns.	
	5. Pesticides and their Application	Prerequisites for pest control – detection, identification and economic significance; methods of control: cultural, mechanical, biological, legal, chemical and integration of control methods; types, chemical compositions, mode of action and other characteristics of pesticides; formulations of pesticides; principles of pesticides application and significance of droplet size; application techniques for control of field and storage pests; application machinery; safe handling and storage of pesticides; pesticides and environment; economics of pests control.	
	6.Crop Entomology	General principles of insect morphology, structure and functions of various parts, life-cycle, and orders of insects of economic importance with special emphasis on insects found in Nigeria.	

Course Code/Title	**Module**	**Description**	**Credit Units (LTP)**
6.AXE 412/E-Soil Conservation	1.Farm Design, Survey & Land Use Planning	Farm design objectives and instruments; farm instruments; farm survey measurements, levelling; terracing, drainage and irrigation	3-0-0

and Land Management Extension		canals; access roads infrastructure on farm field trials; Gender lens in farm design, survey and land use planning.	
	2.Farm Machinery and Mechanization Practice	Farm machinery types; implements and their capacities. Farm machinery and farm power needs and maintenance; field tours. Basic Mechanics, workshop tools, principles of internal combustion engines and electric motor. Study of farm machinery used for tillage, ploughs, harrows, cultivators, farm power transmission system. Harvesting and processing Equipment, sprayers and dusters. Equipment of livestock (automatic feed conveyer, automatic drinkers for poultry, feeding and watering equipment. milking and milk handling equipment, meat processing equipment). Water lifting and irrigation equipment, servicing instrument used on the farm. Operating principles, selection and maintenance procedures of farm machinery. Farm machinery costing and records, workshop and building materials used on farm.	
	3.Soil and Water Management	Principles of soil and water management, soil management problems, soil water deficit and its management with special reference to drought condition, soil and water management processes, soil tillage methods and their effects on soil properties, use of saline and waste/sewage water for irrigation, management of soil salinity, acid soil and management. Practicals: Evaluation of effect of cultivation on soil properties, analysis of saline acid and contaminated soils, examination methods of modifying soil structure, lime and gypsum requirement of soil.	
	4. Principles of Organic Farming	Definition of organic farming; components of organic farming; crop rotation; soil management; non-chemical weed management; domestic and industrial waste recycling; use of traditional additives for organic farming; bio-fertilizers as a non-traditional additive for organic farming; use of green manure crops in organic farming; adverse effects of agro-chemicals on soil, water, food and atmospheric environment; nitrate pollution; potential benefits of organic agriculture.	
	5. Introduction to Irrigation	Role of water in crop growth; concepts of soil water availability and soil water plant	

	Agronomy	atmosphere relationships; crop water requirement; irrigation water requirements; irrigation scheduling, methods of irrigation, water deficits and crop yield; water use efficiency and water quality; principles of soil salinity and alkalinity; management of problem soils (saline, alkali, saline alkali, and flood prone soils); leaching and drainage; irrigation resources of Nigeria; visits to irrigation sites.	
	6. Soil and Crop Nutrition	Conditions and transformation involved in the transfer of mineral nutrient from soils to plant; Uptake mechanism of individual cells and roots (short distance transport); uptake and release of mineral elements by leaves and other aerial plant part; diagnoses of mineral nutrient Deficiencies and toxicities; soil fertility evaluation; fertilizer types, formulations and ratios and fertilizer calculations; effect of cultural treatments on soil fertility; characteristics and management of tropical soils.	

PART FIVE
First Semester

Course Code/Title	**Module**	**Description**	**Credit Units (LTP)**
1. AXE 501/E-Extension and Community Engineering II	1.Using ICTs at Grassroots for Community Engineering: Digital Green	Practical understanding of the concepts of digital green; Appropriate ICTs for Grassroots' Communities; Importance of digital green for community engineering; practicals.	3-0-9
	2. Use of Virtual Knowledge Network in Extension and Community Engineering	Understanding the concept of Virtual Knowledge Network (VKN); application of VKN in extension and community engineering; practicals.	
	3.Providing e-Climate Change Knowledge Advisory to Farmers	Understanding the concept of e-climate change knowledge; tools for e-climate change knowledge advisory to farmers; practicals.	
	4.Uses of Community Radio in Extension and Community Engineering	Significance of community radio in extension and community engineering; selecting and developing messages for community radio extension and advisory services; Uses and operation of radio in extension and community	

		engineering; practicals.	
	5. Harnessing Social Media for Agricultural Development and Community Engineering	Unveiling the effectiveness of social media in extension and community engineering; selecting appropriate social media for extension and rural advisory services; engaging farmers on social media platforms; creating farmers' networks on smartphones; practicals.	
	6. Smart Phones Use and Management for Extension and Community Engineering	Types of smart phones; Uses and management of Smart phones; packaging messages and disseminating messages to farmers through smart phone; creating farmers' networks on smartphones; practicals.	
	7.Developing Farmers Contact/Call Centers for Advisory Services and Community Engineering	Features of effective gender responsive farmers'contact/call centers; Uses of farmers'contact/call centers for advisory services and community engineering	
	8.Information Dissemination to Farmers by Use of Short Text Message, Calls, and E-Mail	E-strategies for effective information dissemination to farmers; Use of short message, calls and e-mails inn disseminating information to farmers	
	9. Responding to E-Mails, Calls and Short Messages from Farmers	Principles and procedure for effective responses to e-mails, calls and short messages from farmers. Practicals.	
	10.Accessing Online E-Resources e.g. AGORA, OARE, etc.	Uses of online e-resources in extension and community engineering; accessing online e-resources. Practicals	
	11. Developing e-Training Materials for Farmers' Capacity Building	Types of e-training materials;Choosing appropriate e-training materials, Importance of e-training materials; Farmers capacity building through e-training materials. Practicals.	
	12.Developing e-Agricultural Apps for Precision Agriculture, e-Commerce, e-Agricultural Information Exchange and Communication.	Concept of precision agriculture, e-agricultural applications, e-commerce, e-agricultural information exchange and communication; types of e-agricultural applications; E-agricultural applications for precision agriculture, e-commerce, e-agricultural information exchange and communication. Practicals.	

Course Code/Title	Module	Description	Credit Units (LTP)
2. AXE 503-Agri-business Management Extension	1.Agribusiness Value Chain Analysis	The concept of the Value Chain; evolution of value chain concept; types of models of the value chains; the value creation process, value chain activities and margins; agribusiness value chains, their analysis and management; value chain organizations; value chain actors; value chain markets; practicals.	1-0-3
	2.Agribusiness Risk Management	Risk analysis and forecasting, financial instruments to manage exposure to risk (credit, market risk, financial risk modelling, risk adjustment); return on capital. Nature of risk to business; areas of risk; sources of risk in agribusiness; managing risks in agribusiness; global demand and trends; security and strategic factors. Introduction to insurance; life assurance laws; insurance of the person; marine and aviation insurance; property and pecuniary insurance; motor insurance; underwriting and claims; insurance broking; re-insurance and marketing of insurance; practicals.	
	3.Agribusiness Finance	Principles of Agribusiness finance, types of credit extended to agribusiness; the basis of interest rates, sources of loanable funds and collateral security for loans; special institutions for extension of Agricultural and Agribusiness credit in Nigeria including Cooperative Loan and Thrift Societies. Financial management concepts for managing growth, leverage, liquidity, risk and capital investment in Agribusiness; Financial records in Agribusiness, Trial balance extraction, cash book analyses, preparation of final account of agro-enterprises (Merchandizing and manufacturing types), and agro-enterprises of different ownership forms (Sole, partnership and corporation). Analysis of final account (Income Statement and balance sheet); practical.	
	4.Cooperative Development and Entrepreneurship for Agribusiness	Introduction to cooperatives; evolutionary and historical considerations; principles of cooperatives; types of cooperatives; agricultural cooperatives; agribusiness cooperatives; financial management and funding of cooperatives; the entrepreneurial cooperatives; practical.	
	5. Management Information Systems in Agri-enterprises	Information gathering, processing, analysis and design techniques for developing system responsive to managerial needs; computer and information management; information storage and security;	

		information use in planning, control and operational functions; business processing systems, their capabilities, usage and limitations; management of internet technology; practical.	

Course Code/Title	**Module**	**Description**	**Credit Units (LTP)**
3. AXE 505- Animal Production Extension	1. Fish Farming Techniques and Hatchery Management	Artisanal and commercial fish farming methods and importance in fishing boats, trawlers and gears – hooks, traps and nets; different types of fish culture techniques; monoculture, poly-culture, selected breeding, intensive and extensive culture in inland and brackish water, in rice fields, in floating cages and rafts. Gear selectivity; electro-fishing. Spawning methods; artificial fertilization; incubation, rearing, harvesting and transportation of fry and fingerlings. Selection and care of breeders; larvae and fingerling; control of weeds, parasites and diseases in the hatchery; control and physiochemical properties of water; practicals.	1-0-3
	2. Pasture & Range Management	Indigenous and introduced pastures and forage plants, characteristics of grasses, legumes and shrubs. Establishment of pastures, production and seed multiplication, Permanent and temporary pasture, maintenance and utilization. Grazing systems forage conservation, dry season feeds, the effect of sun on conserved feed, silage making, and processing of stovers, etc. 2 hours of practical per week; practical.	
	3. Animal Health & Diseases	Factors affecting health-status in animals. Pre-disposition and causes of diseases; symptom logy and classification of diseases. Control measures; pathological, metabolic/deficiency, surgical conditions, etc.	
	4. Ruminant Nutrition	Physiology of the rumen action, metabolic process and pathways; rumen microbes and microbial activities of the rumen; metabolism of carbohydrates, proteins and lipids; volatile fatty acids; determination of digestion coefficient; feed activities; non-protein nitrogen utilization; system for energy evaluation; nutritional disorders, proximate analysis and ration formulation; practical.	
	5. Animal Products, Processing and Handling	Preparing animal for slaughter, evisceration and dressing, care of carcass, cutting of carcass and care of hides & skin. Processing and storage of meat. Milk microbiology and processing of by	

		products: Butter, cheese and whey. Effects of cooling on egg quality, grading, marketing and distribution of animal products. Practical: Students should be exposed to the abattoir and meat shops.	

Course Code/Title	**Module**	**Description**	**Credit Units (LTP)**
4**.** AXE 507/Crop Production and Protection Extension	1. Seed Production Technology	Structure and nature of seed; functions of parts of seed, seed viability, vigour, dormancy and deterioration. Methods of breaking seed dormancy production, processing, drying, treatment, packaging storage and distribution of improved seed, seed certification. Procedures for field inspections; seed legislation and control. Seed testing procedures. Seed programmes in Nigeria and Seed marketing; practical.	1-0-3
	2. Forage and Fodder Crop Production	Adaptation and botany of indigenous and introduced pastures and forage plants. Characteristics of grasses, legumes and shrubs. Establishment, production and seed production of pasture plants; the utilization and maintenance in permanent and temporary pastures. Forage conservation, dry season feeds; practical.	
	3.Farming Systems	Concept of farming systems; factors determining farming systems; physical, biological and socio Economic characteristics of typical small scale farming systems; nomadic; shifting cultivation, Fallow, rotation, permanent cultivation etc.; cropping system-inter/relay/strip cropping, etc.; mixed Farming- crops and livestock; sole cropping; ranching; dairying; the different system aiming at Crop productivity, soil productivity, and labour productivity; some important crop based on Nigerian farming system; renewal natural resources availability, distribution and potentials; Concepts of biodiversity and conservation of ecosystem; practical.	
	4. Pests of Stored Produce	Nature and type of damage to agricultural produce in store; causes of damage in store; sources of infection/infestation of stored produce; Biology of pests and pathogens in stores; factors that favour damage in stores; Control methods. Practical: Visit to stores, e.g. silos, to determine nature of damage, demonstration of damage by pests to maize, cowpea, fish, etc.; practical.	
	5. Use of Artificial	Types of Artificial Intelligence (AI), Use of	

	Intelligence in Crop Diseases Management	Artificial Intelligence in crop diseases surveillance, diagnosis, treatment on farmers' fields, Enhancing gender equality in use of AI among farmers; practical.	

Course Code/Title	**Module**	**Description**	**Credit Units (LTP)**
5. AXE 509/Soil Resources and Water Management Extension	1. Soil Tillage Concepts and Systems	Definitions of soil tillage; benefits of soil tillage; evolution of tillage systems; types of soil tillage; primary tillage; secondary tillage; surface cultivation; factors influencing timing and type of tillage; soil moisture; soil texture; climate; diversity of tillage systems; conventional tillage; conservation tillage; mulch tillage; ridge tillage; non-tillage; strip tillage; reduced tillage; special tillage systems; practical.	1-0-3
	2. Influence of Tillage on Edaphic Environment, Crop Production and Environmental Quality	Influence of tillage on soil loss by water and wind erosion; influence of tillage on soil physical, chemical and biological environment; tillage and crop production; root and weed growth; crop yields; tillage and soil quality; environmental implications of plough tillage; impact of agriculture on environment; influence of climate change on agriculture; practical.	
	3. Principles of Conservation Agriculture	Principles of conservation agriculture; activities that support conservation agriculture; elements of conservation agriculture; benefits of cover crops; disadvantages of cover crops; soil and environmental benefits of conservation agriculture; major challenges in adopting conservation agriculture; practical.	
	4. Irrigation and Drainage	Role of water in crop growth; concepts of soil water availability and soil water plant atmosphere relationships; crop water requirement; irrigation water requirements; irrigation scheduling, methods of irrigation, water deficits and crop yield; water use efficiency and water quality; principles of soil salinity and alkalinity; management of problem soils (saline, alkali, and flood prone soils); leaching and drainage; irrigation resources of Nigeria; visits to irrigation sites; practical..	
	5. Soil and Water Management	Principles of soil and water management, soil management problems, soil water deficit and its management with special reference to drought condition, soil and water management processes, soil tillage methods and their effects on soil	

		properties, use of saline and waste/sewage water for irrigation, management of soil salinity, acid soil and management. Practical: Evaluation of effect of cultivation on soil properties, analysis of saline acid and contaminated soils, examination methods of modifying soil structure, liEDme and gypsum requirement of soil.	

Course Code/Title	**Module**	**Description**	**Credit Units (LTP)**
6.AXE 511/Developing E-Extension Applications III	1. Developing E-Crop production and protection extension application	Design and development of applications for communicating information to farmers on crop production and protection	1-0-6
	2. Developing E-Animal production extension application	Design and development of applications for communicating information to farmers on animal production and management.	
	3. Developing E-Soil Resources and Water conservation extension application	Design and development of applications for communicating information to farmers on soil resources and water conservation.	

Second Semester

Code	**Title**	**Course Description**	**Credit Units (LTP)**
AXE 502/Developing E-Extension Application IV	Individual Hands-on in Development of E-Extension Applications IV	Practical design and development of Individual e-extension applications for communicating information to farmers on crop production and protection, animal production and management, soil resources and water conservation, etc.	0-0-24
AXE 504/Supervised Entrepreneurship Project	Conduct and Supervision of SEPs	Principle and practice of supervised entrepreneurship project (SEP) in agricultural; continued application of theories of experienced learning and the practical training approach to learning; project decision making models for conducting need assessment,	0-0-24

		market analysis, for an agricultural or agribusiness enterprise. SEP proposal conceptualization and writing; fundamental of loan application and processing; assessing information technology, and resources planning, implementing, monitoring, and evaluating; Students will implement their approved SEPs during the following semester and long vocation period for 5 -6 months.Each student will identify a problem in agricultural production within a community and implement an intervention project towards solving the problem; write and submit a thesis.	

3. CERTIFICATE COURSES

Certificate Courses in:

i. Rural Development Studies;
ii. Extension Management and Administration; and
iii. Agricultural Media Communication

4. POSTGRADUATE PROGRAMMES*

The Department offers the following postgraduate courses:

a) A minimum of three semesters for M.Sc. in Agricultural Communication based on course work and an independent research work.
b) A minimum of three semesters for M.Sc. Agricultural Extension and Rural Sociology based on course work and an independent research work.
c) A minimum of four semesters for M.Phil. in Agricultural Extension and Rural Sociology based on one year course work and an independent research work.
d) A minimum of four semesters after M.Phil. or otherwise six semesters for Ph.D. degree in full study in Agricultural Extension and Rural Sociology.

5. PROGRAMMES IN-VIEW

a) Postgraduate Diploma Course in Agricultural Extension and Rural Sociology
b) Postgraduate Professional Master of Science Courses in:

    i. Community Social Engineering;
    ii. Agricultural Media Communication; and
    iii. Extension Science

c) Master of Philosophy and Doctor of Philosophy in Agricultural Media Communication

*The courses and course outlines are as listed in the University Postgraduate Handbook.

RESEARCH AND DEVELOPMENT FACILITIES

Facilities within the Department

On-station Demonstration Farm

The Department of Agricultural Extension and Rural Sociology runs a demonstration farm of three hectares on the Teaching and Research Farm for the purpose of exposing research findings of the other departments in the Faculty of Agriculture to practising farmers, and for teaching students how to plan a demonstration farm. Emphasis is on arable crops, cassava, soybean, maize, tomatoes, okra and leafy vegetables with the aim of determining the effect of use and rate of application of fertilizers to these crops. In recent years, research and transfer of improved Agricultural technologies have been expanded to include livestock productions. Examples are sheep and goat rearing, indigenous poultry farming and turkey production. Others include snail production, fish farming, beekeeping and cane rat rearing.

Integrated Rural Development Project (IRDP)

As a major rural development strategy, the Department of Agricultural Extension and Rural Development runs an outreach programme for the Faculty of Agriculture – the Rural Development Project – in two ecological zones: a rain forest station in the Ife-East and Ife-Central (formerly *Oranmiyan* LGA) Local Government Areas, and a derived savanna station in Egbedore (formerly *Ede*) Local Government Area. This project is the field-based laboratory for the Department of Agricultural Extension and Rural Sociology, which enhanced testing of extension principles and philosophies among rural farmers; teaching of student about rural living; collection and establishment of database; and assisting in the empowerment processes of the rural dwellers. Historically, when the then (University of Ife) now Obafemi Awolowo University moved to its present permanent site in Ile-Ife in 1968, it was recognized that the Department of Agricultural Extension and Rural Sociology, in cooperation with other Departments in the Faculty of Agriculture, and other Faculties in the University, could play an important role in helping to improve agricultural production in the then Ife Division and thus raising the level of living of rural habitants.
In 1969, nine villages were selected for their contiguity and accessibility to the University. These are *Erefe*, *Aroko*, *Iyanfoworogi*, *Ladin*, *Akeredolu*, *Isoya*, *Olorombo*, *Esera* and *Walode*. These villages are situated in the rain forest belt of southern Nigeria. There are two marked seasons (a dry season from November to March with an average rainfall of 5” and a rainy season between April and October with rainfall ranging between 40”– 60”). The majority of the population is dependent wholly or partly on the land for its livelihood. Cocoa is the major cash crop and the area, with highly suitable soils and rainfall. It therefore, has been scheduled as one of the major cocoa redevelopment areas.

In 1982, the Isoya Integrated Rural Development Project was replicated at another Ecological zone (derived Savanna). The following villages were selected in the zone: *Aro, Ojo, Ikotun* and *Ile Aro* with the headquarters at *Awo* in *Egbedore* Local Government area of Osun State. Some of the action programmes at this new location are: (a) Arable crops and (b.) Livestock programme (West

African Dwarf Goat Management Programme). Currently the IRDP is reaching out to about 55 communities within Osun State.

The villages are also individually characterized by varying proportion of adult males and females and youth, who are full time farmers, part-time farmers, artisans and traders. The project has successfully introduced many innovations and technologies, which are widely adopted by farmers in the outreach communities.

The following are some of the objectives of the IRDP, which have helped the Department to make appreciable impacts on members of the public:

(1) Developing a model for approaching rural development in the selected villages that could be applied later and on wider scale.

(2) Field-testing and demonstrating innovations.

(3) Serving as a research centre for testing and applying methods of community development and extension.

(4) Assisting the inhabitants of the area to improve their level of living.

Some Facilities Available to Students within the Faculty

a) A Conducive Lecture Theatre for part five students
b) A Postgraduate Fellows' Chamber
c) An Agricultural Media Resources Laboratory (AMREL)

Information on Facilities within the University

a) **HEZEKIAH OLUWASANMI LIBRARY**

The Library consists of the North and South wings, which are connected by walkways on two levels.

MEMBERSHIP

Membership of the library is available, on completion of a registration card, to all students, members of the senior staff of the University and such other persons as may be determined by the Library Committee or the University Librarian on behalf of it.

Students are required to renew their registration at the beginning of each academic year. Library Cards and Borrower's tickets are o transferable; books issued on them remain the responsibility of the person whose name appears on them.

A Lost Library Card or Borrower's Ticket may be replaced on submission of a written application.

THE LIBRARY COLLECTION

Hezekiah Oluwasanmi Library now contains over 380,000 volumes. It consists of two main areas:

(i) The Undergraduate Areas and
(ii) The Research Areas.

1. **Serial Collection**

The Serials Collection consists of:

(i) Current journals, the most current issues of which are shelved in the display section of the Serials Room.

(a) Latest back file i.e. the latest 10 years of journal, which are on open access to registered senior staff and postgraduate students.

(b) Older back file i.e. journals older than ten years are on closed access to all categories of readers who must obtain and complete request forms at the serials hatch.

2. **Africana Special Collection**

The Africana Special Collection is a collection of rare and other books of primary interest to people whose fields of interest are in African Studies. Staff publications and theses submitted for higher degrees of the University as well as of other Universities are also housed there. The Collection is closed access.

3. **Documents Collection**

The Documents Collection includes official publications of the Federal Government of Nigeria, the old regional governments, the present state governments and the Federal Capital Territory. It also includes publications of other African governments and international organizations.

4. **Reference Collection**

Dictionaries, encyclopedia, handbooks, directories, atlases, University Calendars, etc. are shelved in the Reference Room. Bibliographies, indexes and abstracts are available in the Bibliography Room. Reference books do not ordinarily circulate. A newspaper clippings file (post-October, 1985) and a vertical file of reprints and the pamphlet type material is kept in the Reference Room.

5. **Reserve Collection**

(i) **Day reserve collection**

Multiple copies of textbooks, particularly some of those recommended for specific courses, are shelved in the Reserve Books Room on Floor 3 North Wing East.

(ii) **Two Hour Reserve**

Some other materials, periodical articles in particular, are placed on 2-hour reserve. These may be obtained on request (signature and seat number required) and retained for a period of

two hours at a time, subject to renewal, provided other readers have not demanded the materials.

6. **Recent Accessions**
A selection of books added to the Library stock is normally displayed for several days before being put in the main collection. The books may not be borrowed while on display bust may be reserved at the Loans Desk.

CATALOGUES

A library catalogue is a finding list of books and other materials available in the Library, the following catalogues can be found in the catalogue Hall:

(i) The Author/Title Catalogue
(ii) The Subject Catalogue
(iii) The Shelf List
(iv) The Serials Catalogue
(v) The Documents Catalogue

HOW TO BORROW A BOOK

When you have found the book you want to borrow, you will be required to sign your name and address on the book card provided in duplicate. Your must surrender a Borrower's Ticket for each book borrowed.

When you return a book, you must ensure that you receive your Borrower's Ticket bake immediately.

RESERVATION

A book can be reserved by filling a reservation slip; in which case, it will not be renewed for the present borrower when returned, and, if it is already overdue, it will be recalled at once.

INTER-LIBRARY LOAN

If the book you require is not in stock, it is often possible to borrow it from another library. This service is dependent on goodwill and co-operation between libraries, and readers who benefit from it are required to observe the regulations applying to each loan.

Penalties for overdue books will be imposed as follows:-

(a) ₦5.00 per day for the first 30 days; thereafter all loan privileges will stop.
(b) Books specially recalled by the university Librarian will attract a fine of ₦10.00 per day after the third day from the date of recall.
(c) Books lost or damaged will attract a fine five times the current cost of the books.
(d) No student will be allowed to attend the Graduation Ceremony of receive his/her certificate without a clearance certificate from the University Library to the effect that no book or fine is outstanding against him or her.

PHOTOCOPYING SERVICES
The Library provides photocopy services within its facility for users at a fee.

b) DIVISION OF STUDENTS' AFFAIRS

1. **Guidance and Counseling Unit:**
The Division of Student Affairs has Professional Counselors who are committed to helping students grow in self-understanding in the process of integrating their personal and academic experiences. The services are free to students and are confidential (i.e. not used as part of his/her other University records). The services include personal crisis intervention, psychological testing, career and occupational counseling and settlement of grievances between students. Where necessary, consultations are made with campus organizations, specialist and academic Departments, to ensure that students' problems are resolved satisfactorily.

The Counselors can be contacted in Rooms 9 & 10 Divisions of Student Affairs between 10.00 a.m. and 2.00 p.m. Monday to Friday.

2. **Scholarship and Financial Assistance:**
The Division of Students' Affairs serves as a link between students and sponsoring authorities, both within and outside Nigeria. Students are advised to check the Notice boards in their respective faculties as well as those at the Division of Student Affairs Building for advertisements and other relevant information.
Liaison is also maintained between students and governments at various levels for scholarship and bursaries.

Course Unit System and Computation of Cumulative Grade Point Average (CGPA)

(a) DEFINITION OF TERMS

(i) **Student Workload:** This is defined in terms of course units. One unit represents one hour of lecture or one hour of Tutorial or 2-4 hours of practical work per week throughout a semester. Thus for example, a course in which there are 2 hours of lectures and 1 hour of Tutorial per week is a 3 unit course.

(ii) **Total Number of Units (TNU):** This is the total number of course units carried by a student in a particular semester. It is the summation of the load Units on all Courses carried during the semester. For example, A student who is carrying 6 courses of 3 units each has a TLU of 18 for that semester. No student shall be allowed to carry (i.e. register for) or be examined in more than 24 units in any particular semester.

(iii) **Cumulative Number of Units (CNU).** This is the summation of total number of units over all the semesters from the beginning to date. A student who is prone to repeating courses will finish (if he does not drop out) with a higher CNU than his non-repeating colleague and will most likely require a longer time to complete requirements for the award of Degrees.

(iv) **Level of Performance Rating:** This is the rating of grades obtained in terms of credit points per load unit. The ration used is as follows:

Level of Performance Rating (Credit Points Per Unit)

A	=	70%-100%
B	=	60%-69%
C	=	50%-59%
D	=	45%-49%
E	=	40%-44%
F	=	0%-39%

Based on the above, a student who obtained a grade of 'A' in a 4-unit course has scored 20 Credit points, and one who obtained a grade of C in that course has scored 12 Credit points.

(v) **Total Credit Points (TCP):** This is the sum of the products of the course units and rating in each course, for the entire semester period. For example, consider a student who took 4 course of 5 units each. Let's say the grade obtained in the four courses were C.B.F.D. respectively. The TCP of this student is obtained as 5x3+5x4+5x0+5x2 =45.

(vi) **Cumulative Credit Point (CCP):** This is the summation of Total Credit Points over all semesters from beginning to date.

(vii) **Grade Point Average (GPA):** This is the total credit points (TCP) divided by the total units (TNU). For example, consider the student's scores referred to above. His TCP is 45, and of course, his TNU is 20 (i.e. 4 courses at 5 units each, for the semester). The highest GPA that can be earned is 5.0 and that is when a student has earned a grade of 'A' in every course during the semester. The lowest GPA obtained is 0.0 and this would happen if the student has "F" all round during the semester.

(viii) **Cumulative Grade Point Average (CGPA):** This is the summation of TCPs for all semesters, divided by the summation of TNUs for the said semesters. Like the GPA, CGPA obtainable ranges from 0 to 5.

PATTERN OF EXAMINATION

(i) Each course shall be examined at the end of the course. The examination shall be conducted as prescribed by Senate.
(ii) Each examination shall be 1-3 hours in duration. In addition there may be a practical paper and /or an oral examination.
(iii) There shall be continuous assessment of each course and this shall constitute a percentage of the final grade.

(b) MEASUREMENT OF PERFORMANCE

Performance in a course shall be measured in terms of:

(i) The results of prescribed theory and practical examination

(ii) Continuous assessment, which shall constitute 40% of measured performance.

(iii) Assessment of such essay, practical exercises and reports prescribed for each course.

(c) LEVEL OF PERFORMANCE

A candidate shall be recorded as having attained in a course a level of achievement graded as follows:

A	=	Excellent	70-100%
B	=	Very Good	60%-69%
C	=	Good	50%-59%
D	=	Satisfactory	45%-49%
E	=	Adequate	40%-44%
F	=	Failure	0%-39%

(d) CALCULATION OF GRADE POINT AVERAGE (GPA)

The overall performance of each candidate during an entire semester shall be determined by means of a weighted grade point average, obtained by awarding credit points in respect of each course multiplied by the numerical value of the grade obtained as follows:

A	=	5 credit point per unit	
B	=	4	“ “
C	=	3	“ “
D	=	2	“ “
E	=	1	“ “
F	=	0	“ “

The grade point average is the total number of credit points divided by the total number of units for all courses taken during a particular semester.

(e) GPA AND CGPA SAMPLE COMPUTATIONS

Sample Computations: Consider a student who has enrolled in the department for a Bachelor of Agricultural degree programme in Agricultural Extension and Rural Development and has just completed two full semesters in the University. His course programme and his GPA and CGPA could be as follows:

Semester 1

1	2	3	4	5	6	7	8
	L	T	P	UNITS		RESULTS	
Course					GRADES	Credit	GPA/CGPA

code						points	
MTH105	4	1	0	4	78%(A)	5X5=25	GPA=55/18=3.06
PHY 105	3	1	0	4	60%(B)	4X4=16	CCP=55+0=55
PHY107	0	0	3	1	45%(D)	1X2=2	CNU=18+0=18
CHM101	3	1	0	4	38%(F)	4X0=0	CGPA=55/18=3.06
CHM103	0	0	3	1	27%(F)	4X0=0	
ZOO101	3	0	3	3	50%(C)	3X3=9	
ZOO103	3	0	0	1	50%(C)	1X3=3	
				18(TNU)		55(TCP)	In this case the TCP,TNU and GPA will be the same for CCP, CNU and CGPA

Semester II

1	2	3	4	5	6	7	8
	L	T	P	UNITS		RESULTS	
Course code					GRADES	Credit points	GPA/CGPA
MTH106	4	0	0	4	66%(B)	4X4=16	GPA=51/18 =2.83
PHY 106	3	1	0	4	72%(A)	4X5=20	CCP=55+51=106
PHY108	0	0	3	1	47%(D)	1X2=2	CNU=18+18=36
CHM102	3	1	0	4	53%(C)	4X3=12	
CHM104	0	0	3	1	42%(E)	1X1=1	CGPA=106/36=2.94
BOT102	3	0	3	3	20%(F)	3X0=0	
BOT104	3	0	3	1	35%(F)	1X0=0	
				18(TNU)		51(TCP)	

It should be noted that although compulsory, relevant special electives are not computed in the process of determining CGPA.

Assessment and Award of Degrees

i. A student's workload is defined in terms of course units. One unit represents one hour of tutorial, or 2-4 hours of practical work per week throughout a semester. All courses shall run for one semester or a full session of two semesters.

ii. The final award and the class of the degree shall be based on the Cumulative Grade Point Average (CGPA) obtained by each candidate in all prescribed courses approved by the University. The final cumulative grade point average shall be calculated on the basis of the total number of credit points and the total number of course units registered for during the course of the student's programme. In the case of a failed course, the candidate must repeat the course at the next available opportunity. If the course is an elective, the candidate may substitute another course and shall not be required to pass the failed elective course. If the course is a restricted elective, substitution can only be made from the list of restricted electives. The failed grade would however be reflected in the transcript.

iii. A candidate who has satisfactorily completed all requirements for the degree with an overall grade point average of not less than 1.50 shall be awarded the honours degree as indicated below:

First Class	4.50 – 5.00
Second Class (Upper Division)	3.50 – 4.49
Second Class (Lower Division)	2.40 – 3.49
Third Class Honours	1.50 – 2.39
Pass	1.00 – 1.49

iv. Passes in 12 units of Special Electives is a requirement for graduation.

v. A candidate who scores a cumulative grade point average (CGPA) of less than 1.00 in two consecutive semesters shall be required to withdraw from the University.

ROLL OF HONOURS FOR STUDENTS

Senate at a special Meeting held on Wednesday, 1st November, 2006 decided that Roll of Honours for Students be instituted in the university to enhance discipline and good performance among students.

All students are enjoined to strive to be on the Honours Roll.

The details are as follows:

(i) The Honours Roll should be at three levels, namely:
   (a) Department Hounour's Roll
   (b) Provosts/Deans Honours Roll
   (c) University/Vice-Chancellor's Honours Roll

(ii) The beneficiaries must have a minimum CGPA of 4.0 for Department Honours Roll; 4.25 for Provost/Deans Honours Roll and 4.5 for Vice-Chancellor/University Honours Roll in all the Faculties except the Faculty of Pharmacy and College of Health Sciences where the candidates are expected to have a cumulative average of 60% and 62% respectively.

(iii) The beneficiary must maintain this grade annually to continue to enjoy the award.

(iv) The recommendations must be processed along with results of Rain Semester examinations.

(v) The student must be of good conduct.

(vi) He/she must not have outstanding or carry-over courses and must not be repeating the year

(vii) No student on leave of Absence shall enjoy the Annual Roll of Honours Award.

(viii) No student that has a disciplinary problem shall enjoy the award

(ix) The award shall be based on the recommendation of the Departmental Board of Examiners and the Faculty Board of Examiners, While that pertaining to the Vice-Chancellor/University shall be processed through the committee of Deans.

(x) Names of Beneficiaries shall be displayed as follows:
   Departmental Honours - Departmental Notice Board

Provost/Deans Honours	- Faculty Notice Board
Vice Chancellor/University Honours	- Floor 'O' Secretariat Building

(xi) Each beneficiary shall be given a certificate

University Examination Regulations

a) REGISTRATION FOR UNIVERSITY EXAMINATIONS

i. A candidate for a University examination must have registered for the courses in the prescribed format not later than the closing date prescribed for registration for such courses. Any candidate who fails to register for courses at the appropriate time as prescribed by Senate will not be allowed to take any examination in such courses. Any examination taken without course registration shall be null and void.

ii. Students who register for courses are committed to the number of units registered for and are expected to take examinations in such courses. If a student failed to take an examinations in such courses. If a student failed to take an examination he would be scored '0F' for the number of units he had registered for and in which he had failed to take the prescribed examination.

iii. Any student who does not have any course or courses to offer in a particular semester should apply for leave of absence.

iv. A candidate who has less than 15 units in a particular semester to graduate should apply to his/her Faculty Board for permission to register for less than 15 units. Failure to do so constitutes a breach of regulation which may result in the non-processing of the candidate's results.

v. A candidate, who cannot register for courses during the prescribed period for registration because of an illness, must ensure that medical report on his illness is forwarded by him or his parents/sponsors to reach the Dean of his Faculty not later than four weeks after the end of the normal registration period as scheduled in the University Calendar. Such a medical report should be forwarded for authentication by the Director of Medical and Health Services for it to be considered valid. Such a candidate shall be exempted from the penalties of late registration. All applications should be routed through the Head of Department.

vi. Students must attend a minimum of 75% of course instructions including lectures, tutorials and practicals where required to quality to sit for examination in any course.

viii. A candidate for a university examination in a particular degree programmes should not be a regular candidate for another degree in this or any other university concurrently. Any candidate so discovered shall forfeit his/her studentship.

b) **ABSENCE FROM EXAMINATION**

Candidates must present themselves at such University examinations for which they have registered. Candidates who fail to do so for reason other than illness or accident shall be bound by the following regulations:

i. Any student who fails to register for courses during one semester without permission should be deemed to have scored "0F" in the minimum number of units required for full time student (i.e. 15 units).

ii. Candidates, who registered for courses, attended classes regularly, did all practicals and tests but did not take required semester examinations should be given a continuous assessment grade in each of the affected courses and a grade of "O" in the examination which they should have taken, but which they did not take.

iii. Candidates who have less than 15 units to graduate but who fail to take the required examination should be deemed to have scored "0F" in the outstanding course only provided such candidates obtained permission to register for less than 15 units.

iv. Any candidate who on account of illness, is absent from a University examination may be permitted by the Senate on the recommendation from the appropriate Faculty Board, to present himself for such examination at the next available opportunity provided that:

a. A full-time student in the University shall report any case of illness to the University Health Centre at all times.

b. When a student falls ill during examination he should first report to the Director, Medical and Health Services before attending any hospital outside the University. A report of sickness should be made to the Registrar within a week and a medical certificate for validation of his illness within three weeks.

c. When a student falls ill before an examination he shall be under an obligation to send a medical report countersigned by the Director, Medical and Health Services within one week of such illness. Anytime outside this period, shall be considered on its own merit.

d. The Director of Medical and Health Services should, within 48 hours, submit a medical report on a candidate who is ill during an examination and is taken to the Health Centre or referred by it to the hospital for treatment.

e. A candidate applying for leave of absence on medical grounds must forward his application together with a medical report to the Dean of his Faculty through his Head of Department. The Medical report must be countersigned by the Director of Medical and Health Services. All applications for Leave of Absence must be taken by the appropriate Faculty Board.

c) **EXAMINATION OFFENCES AND PENALTIES EXAMINATION OFFENCES**

i. A candidate shall not be allowed during an examination to communicate by word or otherwise with any other candidates nor shall he leave his place except with the consent of an invigilator. Should a candidates act in such a way as to disturb or inconvenience other candidates, he shall be warned and if he persists he may, at the discretion of the invigilator, be excluded from the examination room. Such an action by the invigilator must also be reported in writing through the Head of Department to the Vice-Chancellor within 24 hours.

ii. It shall be an examination offence for any student, staff or any person whatsoever to impersonate a candidate in any University examination. Any student or staff or the University found guilty under this regulation shall be subjected to disciplinary action by the appropriate authority of the University. The candidate impersonated shall also be liable of an infraction of this regulation where it is established directly from circumstantial evidence that the impersonation is with his knowledge or connivance.

iii. No candidate shall take into an examination room, or have in his possession during an examination any book or paper or printed or written documents, whether relevant to the examination or not, unless specifically authorized to do so. An invigilator has authority to confiscate such documents.

iv. Mobile phones are not allowed in examination halls.

v. A candidate shall not remove from an examination room any papers, used or unused, except the question paper and such book and papers, if any, as he is authorized to take into the examination room.

vi. Candidates shall comply with all "direction to candidates" set out on an examination answer book or other examination materials supplied to them. They shall also comply with direction given to them by an Invigilator.

vii. Candidates shall not write on any paper other than the examination answer books. All rough work must be done in the answer books and crossed out neatly. Supplementary answer books, even if they contain only rough work must be tied inside the main answer books.

viii. When leaving the examination room, even if temporarily, a candidate shall not leave his written work on the desk but he shall hand it over to an invigilator. Candidates are responsible for the proper return of their written work.

ix. Smoking shall not be permitted in examination room during examination sessions.

x. Any candidate or staff who attempts in any way to unlawfully have or give pre-knowledge of an examination question or to influence the marking of scripts or the

award of marks by the University examiner shall be subjected to disciplinary action by the appropriate authority of the University.

xi. If any candidate is suspected of cheating, receiving assistance or assisting other candidates or of infringing any other examination regulation, a written report of the circumstance shall be submitted by the invigilator to the Vice-Chancellor within 24 hours of the examination session. The candidate concerned shall be allowed to continue with the examination.

xii. Any candidate suspected of examination malpractice shall be required to submit to the invigilator a written report immediately after the paper. Failure to make a report shall be regarded as a breach of discipline. Such report should be forwarded along with the invigilator's report to the Vice-Chancellor.

xiii. Where a Head of Department fails to forward a report on examination malpractice to the Vice-Chancellor such action would be considered as misconduct.

xiv. Where the Vice-Chancellor is satisfied on the basis of the reports forwarded to him that any candidate has a case to answer, he shall refer the case to the Central Committee on Examination Malpractice.

d) PENALTIES FOR EXAMINATION MALPRACTICE AND OTHER OFFENCES

i. Any examination offence would attract appropriately penalty including outright dismissal from the University.

ii. Where the Vice-Chancellor has reason to believe that the nature of any paper may have become known before the date and time of the examination to any persons other than the examiners of the paper, the Board of Examiners, and any official of the University authorized to handle the paper, he may order the suspension of the examination or the cancellation of the paper or setting of a new paper and shall report the matter to the Senate. The Vice-Chancellor shall also stake any disciplinary measure against any student or students involved as he may deem appropriate.

iii. If in the opinion of an invigilator, circumstances arise which render the examination unfair to any candidate he must report the matter to the Vice-Chancellor within 24 hours after the examination. Where such matter is reported to the Vice-Chancellor he may take such action as he deems fit. If he directs that another examination be held, that examination shall be the examination for the purpose of this regulation.

iv. Any candidate or member of staff may complain to the Vice-Chancellor that an examination has been improperly conducted. The Vice-Chancellor shall investigate the complaint and report the result of his investigation to the Senate which shall take such action as it may deem appropriate, including with-holding a result or deprivation of the award of a degree, diploma etc as laid down in Status 17. However where it is shown to the satisfaction of the Committee of Deans that any alteration or amendment of a University regulation involving a change in a course of study or in examination requirements has caused hardship to a candidate in any examination, the Committee of Deans shall make such provisions as it thinks fit for the relief of each hardship and report same to Senate.

DEPARTMENTAL COMMITTEES

At the moment, the Department is run on an all-inclusive 9-Committee system. Each of them has its terms of reference with which to operate in order to ensure the progress of the Department. These are outline as follows:

S/N	Committees*	Terms of reference
1	Departmental Examination and Results Coordinating Committee	The Committee is to: coordinate examination, process results and ensures that the results for each semester are documented in students' files for future reference. Assist the H.O.D. in advising students on academic matters.
2	Departmental Seminar Committee	The Committee is to: schedule fortnightly staff and students' seminar, publicize and mobilize people to attend. Keep record of attendance. Keep stock of Departmental media gargets and monitor their use.
3	Departmental Postgraduate Programme Committee	The Committee is to: coordinate Departmental academic and postgraduate programme, process and document postgraduate students' results, prepare academic Time-Tables, assess students' readiness for seminar and monitor the students' participation in the Departmental academic activities.
4	Departmental Research and Development Committee	The Committee is to: sensitize staff members to write proposals for the possibilities of internal and external funding, review the proposals and recommend for either Faculty Research Committee or external funding agencies. Monitor the development activities of the Department.
5	Departmental Students' Affairs Committee	The Committee is to: assist in seeing to the students' affairs generally and in responding, on behalf of the Department, to correspondences from Students' Affairs Office of the University.
6	Departmental Publication Committee	The Committee is to: take stock of the Departmental publications (Students' Theses, Monographs, Hand books, etc), monitor their use and process new publications for the Department and source for relevant academic publications for the Department.
7	Departmental Staff Welfare and Social Committee	The Committee is to: assist in seeing to the general welfare of staff, mobilize staff for any social engagement that concerns staff members, and liaise with finger foods in servicing Departmental meetings and some relevant breaks.
8	Departmental IRDP Committee	The Committee is to: take stock of Isoya equipment and facilities; propose, implement and monitor farm projects; monitor the activities of Isoya Project.
9	Farm Committee	The Committee is to: take stock of farm equipment and facilities; propose, implement and monitor farm projects.
10	SAFE Committee	The Committee is to: coordinate the operations and activities of SAFE.

Career Prospects and Job Opportunities in Agricultural Extension and Rural Development/Rural Sociology/Community Engineering

The field of Agricultural Extension and Rural Development/Rural Sociology/Community Engineering is broad-based and as such incorporates various aspects of Agriculture including the Social Science dimension of the discipline. It is somewhat equated with a branch of knowledge referred to as Development Studies, which in itself is multi-disciplinary in contents. The wide coverage emphasised in Agricultural Extension and Rural Development/Rural Sociology/Community Engineering, therefore, makes it a fertile ground for whoever takes the pain to apply. The Department has keyed into the current trend in the field of Agricultural Extension and Rural Development/Sociology by establishing a BSc Programme in E-Agricultural Extension and Community Engineering.

Graduates from the Department are found in various sectors both internationally and locally. The relevance of the course is not limited to Agriculture alone but to all other fields of human endeavours. In order to fit in properly in an international organisation, however, an individual needs to enhance his or her academic status by going a step further to acquire a higher degree in the field in addition to computer literacy and second language such as French, Portuguese, etc.

The following are, therefore, possible areas in which the prospective graduate of the Department could earn his or her livelihood and with utmost fulfillment:

- National Agricultural Development agencies such as the ADPs, Ministry of Agriculture and Rural Development, etc.;
- Oil companies;
- Mass media houses;
- International Development agencies such as the United Nations Development Programme, Food and Agricultural Organisation of the United Nations, etc.;
- Research institutes;
- Private establishment/firms and agro-allied industries;
- Non-Governmental Organisations (NGOs);
- Education parastatals and agencies;
- Self-employed agro-allied endeavours; and
- Anywhere human beings are being served.

Student's Personal and Academic Records

First Year (Part I) Harmattan Semester

Course code	Course Title	Units	Score	Grade
SE `	Special Elective	4		
MTH 105	Mathematics for Biological Science I	4		
PHY 105	Physics for Biological Sciences I	4		
PHY 107	Experimental Physics IA	1		
CHM 101	Introductory Chemistry I	4		

CHM 103	Experimental Chemistry	1
ZOO 101	Introductory Zoology I	3
ZOO 103	Introductory Zoology I (Practical)	1

PRESENT			PREVIOUS			CUMULATIVE		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

First Year (Part I) Rain Semester

Course code	Course Title	Units	Score	Grade
SE	Special Elective	4		
MTH 106	Mathematics for Biological Science I	4		
PHY 106	Physics for Biological Science II	4		
PHY 108	Experimental Physics IB	1		
CHM 102	Introductory Chemistry II	4		
CHM 104	Experimental Chemistry II	1		
BOT 102	Form and Functions in Plant II	3		
BOT 104	Form and functions in Plant II (Practical)	1		

PRESENT			PREVIOUS			CUMULATIVE		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

Second Year (Part II) Harmattan Semester

Course code	Course Title	Units	Score	Grade
SE 001	Special Elective	2		
AEC 201	Introduction to Agricultural Economics I	3		
AXD 201	Introduction to Rural Sociology	3		
ANS 201	Anatomy and Physiology of Farm Animals	3		
CPP 201	Agricultural Botany	3		
SLM 201	Agricultural Chemistry I	3		
CSC 221	Introduction to Computer Science	2		

PRESENT			PREVIOUS			CUMULATIVE		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

Second Year (Part II) Rain Semester

Course Code	Course Title	Units	Score	Grade
SE (002)	Special Elective	2		
AXD 202	Organization of Village Communities	3		
AEC 202	Introduction to Agricultural			

	Economics II	2
ANS 202	Introduction to Agricultural Genetics	3
ANS 204	Agricultural Chemistry II	3
ANS 208	Introduction to Fisheries and Wildlife	3
CPP 202	Principles of Plant Science	3
SLM 202	Principles of Soil Science	3

PRESENT			**PREVIOUS**			**CUMULATIVE**		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

Third Year (Part III) Harmattan Semester

Course Code	**Course Title**	**Units**	**Score**	**Grade**
AEC 301	Statistics and Biometrics	3		
AEC303	Principles of Agricultural Economics I	3		
AXD 301	Extension teaching learning Process and Methods	3		
AXD 309	Introducing Technological Change in Agriculture	3		
CPP 301	Agronomy of Arable Crops and Agro-climatology	3		
CPP 303	Introduction to Agricultural Entomology	3		
ANS 301	Non-Ruminant Animal Production	2		
SLM 301	Introduction to Pedology and Soil Physics	3		

PRESENT			**PREVIOUS**			**CUMULATIVE**		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

Third Year (Part III) Rain Semester

Course code	**Course Title**	**Units**	**Score**	**Grade**
AEC 302	Farm Management	3		
AEC 304	Principles of Agricultural Economics II	3		
AXD 302	Agric. Extension Strategies of Supporting Services	2		
AGE 352	Agricultural Engineering I	3		
CPP 302	Agronomy of permanent Crops and Agro forestry	3		
CPP 304	Plant Pathology	3		
ANS 302	Ruminant Animal			

	Production	2
SLM 302	Soil Chemistry and Microbiology	3

PRESENT			PREVIOUS			CUMULATIVE		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

Fourth Year (Part IV) Internship Year (Harmattan Semester)

Course code	Course Title	Units	Score	Grade
AEC 401	Farm Accounts and Budgeting	1		
AEC 403	Fisheries Management	1		
AXD 401	On-Farm Demonstration	1		
AXD 403	Training and Visit Extension	1		
AXD 405	Agricultural Workshop Practices	1		
ANS 401	Livestock Feed Production	1		
ANS 403	Beef Cattle Management Practices	1		
ANS 405	Rabbit Management Practices	1		
ANS 407	Processing of Animal Products	2		
CPP 401	Processing and Storage Of Plant Produce	1		
CPP 403	Management of Arable Crops	1		
CPP 405	Greenhouse Operations	1		
CPP 407	Field plot Techniques	2		
SLM 401	Soil Fertility and Plant Nutrition	1		
SLM 403	Soil and Water Management	1		
AGE 401	Agricultural Surveying	2		

PRESENT			PREVIOUS			CUMULATIVE		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

Fourth Year (Part IV) Internship Year (Rain Semester)

Course code	Course Title	Units	Score	Grade
AEC 402	Farm Management	1		
AEC 408	Report Writing in Agricultural Economics	1		
AXD 402	Extension Records	1		
AXD 404	Agricultural Extension Strategies	1		
AXD 408	Report writing in Agricultural Extension	1		
ANS 402	Poultry Management			

	Practices	1
ANS 404	Sheep and Goat Management Practices	1
ANS 406	Pig Management Practices	1
ANS 408	Report Writing in Animal Science	1
CPP 402	Management of Tree Crops	1
CPP 404	Plant Propagation	2
CPP 406	Nursery Practices and Vegetable Production	1
CPP 408	Report writing in Plant Science	1
SLM 402	Site/soil characterization (Pedology)	1
SLM 408	Report writing in Soil Science	1
AGE 402	Farm Mechanization Practices	2
AGE 408	Report Writing in Agricultural Engineering	1
AGR 400	Agricultural Practices Farm Practice	3

PRESENT			**PREVIOUS**			**CUMULATIVE**		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

Fifth Year (Part V) B. Agriculture (Agricultural Extension and Rural Development) Harmattan Semester

Course code	**Course Title**	**Units**	**Score**	**Grade**
AXD 501	Diffusion of Innovations	3		
*AXD 503	Social Psychology in Extension	3		
AXD 505	Extension Organization and Supervision	3		
AXD 507	Programme Planning in Extension	3		
*AXD 509	Introducing Technological Change in Agriculture	3		
AXD 511	Agricultural Extension Communication Methods	3		
AXD 513	Introduction to Research Methods	1		
AXD 515	Agro-Industrial Extension	3		
AEC 505	Agricultural Development and Policy	3		

***Elective Courses (Take one)**

PRESENT			PREVIOUS			CUMULATIVE		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA

Fifth Year (Part V) B. Agriculture (Agricultural-Industrial Extension and Rural Development) Rain Semester

Course code	Course Title	Units	Score	Grade
AXD 502	Evaluation of Extension Programme	3		
AXD 504	Group Dynamics in Extension	3		
*AXD 506	Teaching of Agriculture	3		
AXD 508	Rural Community Development	3		
*AXD 510	Social Change in Agriculture	3		
AXD 512	Organization of Rural Youth and Women	3		
AXD 514	Research Project in Agricultural Extension and Rural Development	2		
AXD 516	Agro-Industrial information Generation and Utilization	3		
AEC 508	Agricultural Business Management	3		

***Elective Courses (Take one)**

PRESENT			PREVIOUS			CUMULATIVE		
TCP	TNU	GPA	TCP	TNU	GPA	TCP	TNU	GPA