NATIONAL BOARD FOR TECHNICAL EDUCATION

PLOT B BIDA ROAD, P.M.B. 2239, KADUNA, NIGERIA

HIGHER NATIONAL DIPLOMA

IN

AGRIBUSINESS MANAGEMENT

CURRICULUM AND COURSE SPECIFICATIONS

JUNE, 2026

PREFACE

The transformation of Nigeria's agricultural sector remains central to the nation's aspirations for sustainable economic growth, food security, job creation, industrial development, and poverty reduction. As agriculture continues to evolve in response to technological advancements, climate change, emerging global market demands, and the need for increased productivity across agricultural value chains, it has become imperative to ensure that curricula in Nigerian tertiary institutions remain relevant, responsive, and aligned with contemporary industry requirements. It is against this backdrop that we embarked on the comprehensive review and modernization of Agricultural curricula for Nigerian tertiary institutions. The review process was designed to address identified skills gaps, integrate emerging technologies and innovations, strengthen entrepreneurship and employability competencies, promote climate-smart agriculture, and align training programmes with the industry expectations and global best practices. The successful execution of this important project was made possible through the invaluable support and commitment of key stakeholders. I wish to express profound appreciation to the Honourable Minister of Education for providing the policy direction and leadership that facilitated this initiative. I also extend sincere gratitude to the Honourable Minister of Agriculture and Food Security and the Honourable Minister of Livestock Development for their unwavering support, technical contributions, and commitment to strengthening agricultural education and workforce development in Nigeria. Special appreciation goes to the Tertiary Education Trust Fund (TETFund) for providing the special intervention grant that enabled the conduct of nationwide skills gap analyses and supported the series of national curriculum review and development workshops. The findings from the skills gap studies provided critical evidence and industry insights that guided the review process and ensured that the curricula reflect current and future workforce requirements within the agricultural sector.

I also acknowledge with gratitude the immense contributions of the Sector Skills Council for Agriculture, whose expertise and industry perspectives greatly enriched the curriculum development process. Equally commendable are the efforts of members of the Implementation Committee, resource persons, industry experts, professional bodies, French Embassy in Nigeria, regulatory agencies, academic institutions, employers, development partners, and other stakeholders who devoted their time, knowledge, and experience to the various workshops and technical sessions. The revised curricula represent a collective national effort to produce graduates equipped with relevant knowledge, practical skills, digital competencies, entrepreneurial capabilities, and professional attitudes required to drive innovation and productivity across Nigeria's agronomy, forestry, fisheries and livestock sectors. It is my expectation that Institutions offering these programmes will faithfully implement the curricula and continue to collaborate with industry to ensure sustained relevance and quality. I commend all stakeholders for their dedication and contributions to this landmark achievement and look forward to the successful implementation of these curricula for the benefit of our dear nation.

Professor Idris M. Bugaje, FNSE
Chairman, Implementation Committee
EXECUTIVE SECRETARY
National Board for Technical Education (NBTE), Kaduna

ACKNOWLEDGEMENT

The National Board for Technical Education (NBTE) expresses its profound appreciation to all individuals and organizations whose invaluable support, expertise, and commitment made the successful review and modernization of the Agricultural Education curricula for Nigerian tertiary institutions possible. Our sincere gratitude goes to the Honourable Minister of Education for providing the policy direction and leadership that made this national initiative possible. We also appreciate the Honourable Minister of Agriculture and Food Security and the Honourable Minister of Livestock Development for their technical guidance, collaboration, and unwavering commitment to strengthening agricultural education and workforce development in Nigeria.

The Board is particularly grateful to the Tertiary Education Trust Fund (TETFund) for providing the special intervention grant that funded the nationwide skills gap analyses, stakeholder engagements, curriculum review exercises, validation meetings, and development workshops. The evidence generated through these studies provided a solid foundation for developing curricula that are relevant, industry-driven, and responsive to national and global agricultural priorities.

Special appreciation is extended to the members of the agriculture sector, curriculum specialists, resource persons, academic experts, professional bodies, regulatory agencies, employers, industry practitioners, development partners, and representatives of public and private sector organizations who participated actively in the skills gap studies, technical sessions, validation exercises, and curriculum development workshops. Their diverse expertise and practical insights greatly enriched the quality and relevance of the curricula. We further appreciate the support of the French Embassy in Nigeria and other development partners for their collaboration in promoting excellence and innovation in technical and vocational education within the agricultural sector.

Finally, NBTE expresses its gratitude to all tertiary institutions, researchers, facilitators, rapporteurs, technical staff, and administrative personnel whose commitment and hard work contributed to the successful completion of this important national assignment. The Board acknowledges that this achievement is the result of a collective effort and remains confident that the effective implementation of these curricula will contribute significantly to producing competent, innovative, and entrepreneurial graduates capable of advancing sustainable agricultural development, food security, and economic prosperity in Nigeria.

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GENERAL INFORMATION

1.0 PROGRAMME NOMENCLATURE

Higher National Diploma (HND) in Agribusiness Management.

2.0 PROGRAMME GOAL

The Higher National Diploma (HND) in Agribusiness Management is designed to produce innovative, technologically skilled, entrepreneurial and globally competitive diplomates equipped with competencies in agribusiness planning, enterprise management, agricultural marketing, value chain development, agribusiness finance, supply chain management, digital agribusiness systems, agricultural trade, export management and agribusiness entrepreneurship for enhanced agricultural productivity, food security, rural enterprise development and national economic growth.

3.0 OBJECTIVES OF THE PROGRAMME

At the end of the programme, the diplomates should be able to:

i. Plan, establish and manage agribusiness enterprises across crop production, livestock, fisheries, processing, marketing and agro-input supply value chains.
ii. Apply agribusiness financial management tools including budgeting, investment appraisal, credit management and financial reporting for agribusiness decision-making.
iii. Conduct agribusiness market research, develop marketing strategies and manage commodity marketing systems for Nigerian agricultural products.
iv. Manage agricultural supply chains, logistics, warehousing and cold chain systems to reduce post-harvest losses and improve market access.
v. Apply digital agribusiness tools including farm management software, e-commerce platforms, data analytics and precision agriculture technologies in agribusiness operations.
vi. Develop and manage agribusiness cooperative enterprises, farmer organisations and outgrower schemes for smallholder market integration.
vii. Apply production economics, resource economics and econometric tools to analyse agribusiness resource use, cost structures and profitability.
viii. Establish agribusiness value addition enterprises and develop export market intelligence for Nigerian agricultural commodities.
ix. Develop and manage agribusiness organisations through effective financial planning, marketing, entrepreneurship, negotiation, communication and project management skills.
x. Apply human capital management, strategic management and organisational development principles in agribusiness enterprise management.
xi. Demonstrate professional ethics, occupational health and safety standards, teamwork and lifelong learning while contributing to agribusiness development, employment generation and national economic growth.

4.0 ENTRY REQUIREMENTS

The minimum entry requirements into the HND Agribusiness Management programme are:

i. Five (5) O'Level credits in relevant subjects including English Language, Mathematics, Agricultural Science or Economics, and two other relevant subjects;
ii. National Diploma (ND) in any Agricultural related field (Agricultural Technology, Animal Health and Production Technology, Horticulture, Fisheries Management and Others) with a minimum Lower Credit;
iii. Must have undergone one (1) year post-ND industrial training experience;
iv. Candidates with a **Pass** at the ND Level with two (2) or more years post-ND cognate work experience may be considered for admission.

5.0 STRUCTURE/DURATION OF THE PROGRAMME

The Programme is structured to last for **two (2) academic years (four semesters)** of classroom instruction, laboratory work and field practicals.
Each semester shall be for 17 weeks, made up as follows:

i) 15 contact weeks of teaching (lectures, practicals, fieldwork);
ii) 2 weeks for tests, registration, and examinations.

6.0 CURRICULUM

The curriculum of the HND Agribusiness Management programme consists of four (4) main components:

i. General Studies Courses
ii. Foundation Courses
iii. Professional Courses
iv. Project work

7.0 STAFFING REQUIREMENTS

7.1 Core Teaching Staff

A minimum of four (4) Core Lecturers who should be Lecturer II and above, with minimum qualification HND/B.Sc./M.Sc. holders in Agribusiness Management, Agricultural Economics and Extension, Farm Management, Food Science and Technology, Business Administration, Agricultural Engineering and Related fields.

7.2 Head of Department (HOD)

The Head of Department shall have at least HND or first degree and a Master's degree in Agribusiness Management or related fields. He or she shall not be below the rank of a Senior Lecturer, must be registered with the relevant professional body and must have a minimum of twelve (12) years experience in both academia and industry.

7.3 Technical Staff

There should be technical staff:

i) **Technologist**

A Technologist is a highly skilled professional trained at the Higher National Diploma (HND) level. They possess advanced technical and practical

knowledge in their field and are capable of supervising operations, managing projects, operating modern equipment, and applying technology to solve practical problems. In agriculture, technologists help in farm management, research support, and the application of improved technologies.

ii) **Technician**

A Technician is a middle-level manpower trained at the National Diploma (ND) level. Technicians are responsible for carrying out technical tasks, operating tools and equipment, and assisting technologists and professionals in practical activities. In agriculture, they assist in crop production, livestock management, farm maintenance, and data collection.

iii) **Farm Assistants**

Farm assistants are support workers who help in daily farm operations under supervision. They perform basic practical activities such as planting, weeding, feeding animals, harvesting, cleaning farm tools, and maintaining farm records. They contribute to the smooth running of farm activities and help improve productivity.

8.0 CERTIFICATION

A diplomate of this programme shall be awarded the Higher National Diploma (HND) in Agribusiness Management.

9.0 AWARD OF HIGHER NATIONAL DIPLOMA (HND)

The Higher National Diploma in Agribusiness Management shall be awarded by the authority of the Academic Board of the institution under the following conditions:

i) Satisfactory performance in all prescribed course work/assignments, tests/quizzes, workshop practice, laboratory work, field trips, etc.;
ii) Satisfactory performance in all semester examinations;
iii) Satisfactory completion of written project/seminar papers;
iv) Satisfactory performance in supervised field experience and industrial-based activities.

9.1 Conditions for the Award of HND:

Institutions offering accredited programmes will award the Higher National Diploma to candidates who successfully completed the programme after passing the prescribed course-work, examinations, diploma project etc. Courses shall be graded as follows:

MARKS RANGE	LETTER GRADE	WEIGHTING
75% and above	A	4.00
70% – 74%	AB	3.50
65% – 69%	B	3.25
60% – 64%	BC	3.00
55% – 59%	C	2.75
50% – 54%	CD	2.50
45% – 49%	D	2.25

40% – 44%	E	2.00
Below 40%	F	0.00

9.2 Classification of Diplomas:
Diploma Certificates shall be awarded based on the following classifications:

CGPA	CLASS OF DIPLOMA
CGPA 3.50 and above	Distinction
CGPA 3.00-3.49	Upper Credit
CGPA 2.50-2.99	Lower Credit
CGPA 2.00-2.49	Pass

10.0 ACCREDITATION OF PROGRAMME
The Higher National Diploma (HND) in Agribusiness Management shall be accredited by the NBTE before the diplomates are awarded the certificates. Details about the process of accrediting a programme for the award of HND are available from the Board's website web.nbte.gov.ng or through correspondence to: The Executive Secretary, NBTE, Plot 'B' Bida Road, P.M.B 2239, Kaduna, Nigeria.

11.0 LOGBOOK
A personal logbook for each course is to be kept by the students. It shall contain all the recordings of the day-to-day, weekly and semester practical works/activities from day one to the end of the programme. This is to be checked, marked appropriately and endorsed by all lecturers concerned at the end of every week.

12.0 FINAL YEAR PROJECTS
Final year students are expected to carry out project work, either on individual or group basis (not more than 2 per group). The project topics should as much as possible be related to the programme and serve as useful tools for further Research and /or Development. Projects should be properly supervised, and their reports well presented. The Institution should develop formats for presenting and grading projects. The formats should be adopted as applied to each stakeholder.

13.0 GUIDANCE NOTES FOR TEACHERS OF THE PROGRAMME
13.1 The new curriculum is drawn in unit courses. This is in keeping with the provisions of the National Policy on Education which stresses the need to introduce the semester credit units which will enable a student, who so wishes, to transfer the units already completed in an institution of similar standard from which he/she is transferring.

13.2 In designing the units, the principle of the modular system by product has been adopted, thus making each of the professional modules, when completed, provides the student with technician operative skills, which can be used for employment purposes.

13.3 As the success of the credit unit system depends on the articulation of programmes between the institution and industry, the Curriculum content has been written in behavioural objectives, so that the expected performance of the student is clear to all students who successfully completed some of the courses or the diplomates of the programme. There is a slight departure in the presentation of the performance-based curriculum which requires the conditions under which the performance is expected to be carried out and the criteria for the acceptable levels of performance. It is a deliberate attempt to further involve the staff of the department teaching the programme to write their own curriculum stating the conditions existing in their institution under which the performance can take place and follow that with the criteria for determining an acceptable level of performance. Departmental submission on the final curriculum may be vetted by the Academic Board of the institution. Our aim is to continue to see to it that a solid internal Evaluation system exists in each institution for ensuring minimum standard and quality of education in the programmes offered throughout the polytechnic system.

13.4 The teaching of theory and practical work should, as much as possible, be integrated. Practical exercises, especially those in professional courses and laboratory work should not be taught in isolation from the theory. For each course, there should be a balance of theory to practice in the ratio of 50:50 or 60:40 or the reverse.

14.0 GUIDELINES ON MANDATORY SKILLS QUALIFICATIONS (MSQ)

Please, refer to NBTE guidelines for implementation of MSQ in Polytechnics. This can be downloaded from NBTE website (web.nbte.gov.ng)

CURRICULUM TABLE

HND I — SEMESTER I

S/N	COURSE CODE	COURSE TITLE	L	T	P	CU	CH
1.	GNS 301	Use of English III	2	0	0	2	2
2.	MSQ 311	Principles of Quality Assurance Assessment	1	0	1	2	2
3.	AGR 303	Farm Management	1	0	2	3	3
4.	ABM 311	Agribusiness Management Principles	1	0	2	3	3
5.	ABM 312	Agricultural Marketing and Consumer Behaviour	1	0	2	3	3
6.	ABM 313	Agricultural Finance and Investment Analysis	1	0	2	3	3
7.	ABM 314	Cooperative and Enterprise Development	1	0	2	3	3
8.	ABM 315	Value Chain Analysis and Development	1	0	2	3	3
9.	ABM 316	Digital Agribusiness Tools and E-Commerce	1	0	2	3	3
10.	ABM 317	Microeconomics	1	0	2	3	3
11.	ABM 318	Econometrics for Agribusiness	1	0	2	3	3
12.	ABM 319	Agribusiness Digital Systems and Data Analytics	1	0	2	3	3
TOTAL			**13**	**0**	**21**	**34**	**34**

HND I — SEMESTER II

S/N	COURSE CODE	COURSE TITLE	L	T	P	CU	CH
1.	GNS 302	Communication in English III	2	0	0	2	2
2.	ENT 326	Practice of Entrepreneurship I	2	0	2	4	4
3.	MSQ 321	Practice of Quality Assurance Assessment	1	0	1	2	2
4.	ABM 321	Agribusiness Accounting and Costing	1	0	2	3	3
5.	ABM 322	Farm Business Management	1	0	2	3	3
6.	ABM 323	Agricultural Commodity Trading and Price Analysis	1	0	2	3	3
7.	ABM 324	Agritech Entrepreneurship and Innovation Lab	1	0	2	3	3
8.	ABM 325	Practical Agribusiness Enterprise	0	0	3	3	3
9.	ABM 326	Agribusiness Financial Management	1	0	2	3	3
10.	ABM 327	Resource and Environmental Economics	1	0	2	3	3
11.	ABM 328	Gender and Social Inclusion in Agribusiness	1	0	1	2	2
TOTAL			**12**	**0**	**19**	**31**	**31**

HND II — SEMESTER I

S/N	COURSE CODE	COURSE TITLE	L	T	P	CU	CH
1.	GNS 401	Communication in English IV	2	0	1	3	3
2.	AGR 401	Research Methodology and Scientific Writing	2	0	0	2	2
3.	AED 412	Agricultural Policy, Institutions and Rural Development	1	0	1	2	2
4.	ABM 411	Strategic Agribusiness Management	1	0	2	3	3
5.	ABM 412	Logistics, Storage and Supply Chain Management	1	0	2	3	3
6.	ABM 413	Agribusiness Project Management	1	0	2	3	3
7.	ABM 414	Food Safety, Traceability and One Health in Supply Chains	1	0	2	3	3
8.	ABM 415	Macroeconomics	1	0	2	3	3
9.	ABM 416	Production Economics	1	0	2	3	3
10.	ABM 417	Agribusiness Statistics and Decision Support System	1	0	2	3	3
TOTAL			**12**	**0**	**16**	**28**	**28**

HND II — SEMESTER II

S/N	COURSE CODE	COURSE TITLE	L	T	P	CU	CH
1.	PIE 424	Produce Value Addition, Processing and Export Enterprise Development	1	0	3	4	4
2.	CPT 421	Produce and Post-harvest Management (Value Addition)	1	0	3	4	4
3.	APT 424	Animal Products Processing and Hygiene	1	0	3	4	4
4.	ABM 421	Agribusiness Risk Management and Insurance	1	0	2	3	3
5.	ABM 422	Agribusiness SME Growth and Management	1	0	2	3	3
6.	ABM 423	Agribusiness Law and Contract Management	1	0	2	3	3
7.	ABM 424	Agricultural Innovation and Investment Pitching	1	0	2	3	3
8.	ABM 425	Project	0	0	4	4	4
TOTAL			**7**	**0**	**21**	**28**	**28**

YEAR I – SEMESTER I

AGRIBUSINESS MANAGEMENT PRINCIPLES

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS MANAGEMENT PRINCIPLES	**COURSE CODE: ABM 311**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in agribusiness management principles for planning, organising and controlling agricultural enterprises.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the nature and scope of agribusiness management; 2.0 Know planning and decision-making in agribusiness; 3.0 Understand organisational management in agribusiness enterprises; 4.0 Understand leadership and human resource management in agribusiness; 5.0 Understand control systems and performance management; 6.0 Understand agribusiness ethics and corporate governance.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS MANAGEMENT PRINCIPLES	**COURSE CODE: ABM 311**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in agribusiness management principles for planning, organising and controlling agricultural enterprises.		
GENERAL OBJECTIVE 1.0: Understand the nature and scope of agribusiness management		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1–2	1.1 Define agribusiness. 1.2 Describe agribusiness scope: input supply, production, processing, marketing and distribution 1.3 Describe the unique characteristics of agribusiness management compared with general business management 1.4 Explain the	•Explain agribusiness; discuss scope with a Nigerian agribusiness system diagram •Discuss unique characteristics with agribusiness versus general business comparison •Explain economic importance with Nigerian data on GDP, employment and food security •Describe enterprise	Agribusiness system diagram, Nigerian agribusiness economic data, enterprise types guide, challenges discussion guide, projector.	•Visit one agribusiness enterprise near the college •Record enterprise type, scope of operations, management structure and challenge observed •Classify five Nigerian agribusiness enterprises by type. •Record enterprise name, type and main agribusiness activity •Prepare a one-page profile of one Nigerian	Guide students to: •Visit one agribusiness enterprise near the college; record enterprise type, scope of operations, management structure and challenge observed •Classify five Nigerian agribusiness enterprises by type; record enterprise name, type and	Enterprise visit guide, classification worksheet, enterprise profile template, interview guide, etc.

	importance of agribusiness to Nigeria's economy: GDP contribution, employment and food security 1.5 Describe the types of agribusiness enterprises: sole proprietorship, partnership, cooperative and company 1.6 Explain the key challenges facing agribusiness management in Nigeria	types with Nigerian examples for each •Discuss key challenges with students using local agribusiness examples		agribusiness enterprise; record history, products, market and management structure •Interview one agribusiness manager; record their role, key decisions made weekly and one major challenge they face •Present the enterprise profile to the class •Prepare presentation slides to explain enterprise scope, management structure and two improvement recommendations	main agribusiness activity •Prepare a one-page profile of one Nigerian agribusiness enterprise; record history, products, market and management structure •Interview one agribusiness manager; record their role, key decisions made weekly and one major challenge they face •Present the enterprise profile to the class; explain enterprise scope, management structure and two improvement recommendations	
GENERAL OBJECTIVE 2.0: Know planning and decision-making in agribusiness						
3–5	2.1 Explain the planning process in agribusiness: mission, goals, objectives and	• Describe planning process with an agribusiness example for each step • Discuss planning	Planning process diagram, planning levels guide, decision-making models	• Develop a mission statement and three strategic objectives for a hypothetical agribusiness	Guide students to: • Develop a mission statement and three strategic	Mission statement guide, SWOT analysis template, operational plan

	strategies. 2.2 Describe strategic, tactical and operational planning levels in agribusiness 2.3 Explain decision-making models used in agribusiness: rational, bounded rationality and intuitive 2.4 Describe how to conduct a SWOT analysis for an agribusiness enterprise 2.5 Explain how to develop an agribusiness strategic plan	levels with a Nigerian agribusiness example at each level • Explain decision-making models with agribusiness application examples • Explain SWOT analysis for one Nigerian agribusiness enterprise • Explain strategic plan development for one agribusiness	guide, SWOT analysis template, strategic plan template, projector.	• Record rationale for each objective • Conduct a SWOT analysis for one agribusiness enterprise near the college. • Record two items per quadrant with brief explanation • Prepare a one-year operational plan for one agribusiness activity. • Record objectives, activities, resources, timeline and responsible persons • Apply a decision-making model to one agribusiness scenario. • Record the problem, options, criteria and recommended decision • Present the SWOT analysis and strategic plan to the class. • Present findings and two strategic priorities identified	objectives for a hypothetical agribusiness; record rationale for each objective • Conduct a SWOT analysis for one agribusiness enterprise near the college; record two items per quadrant with brief explanation • Prepare a one-year operational plan for one agribusiness activity; record objectives, activities, resources, timeline and responsible persons • Apply a decision-making model to one agribusiness scenario. • Record the problem, options, criteria and recommended decision • Present the	template, decision-making scenario (case study), field notebooks, videos, smartphones.

					SWOT analysis and strategic plan to the class; explain findings and two strategic priorities identified	
GENERAL OBJECTIVE 3.0: Understand organisational management in agribusiness enterprises						
6–7	3.1 Describe organisational structures used in agribusiness: functional, divisional and matrix 3.2 Explain how to design an organisational structure for an agribusiness enterprise 3.3 Describe delegation, authority and responsibility in agribusiness management 3.4 Explain coordination mechanisms in agribusiness organisations 3.5 Describe how to manage change in an agribusiness	• Describe organisational structures with diagrams for each type • Discuss organisational structure design for one agribusiness enterprise • Explain delegation, authority and responsibility with agribusiness examples • Explain coordination mechanisms with agribusiness examples • Explain change management with a Nigerian agribusiness case study	Organisational structure diagrams, design guide, delegation guide, coordination examples, change management case study, projector.	• Design an organisational structure for one hypothetical agribusiness enterprise. • Draw the organogram and label all positions • Assign authority, responsibility and accountability for five roles in the designed structure. • Record each assignment and justification • Identify two coordination problems in a provided agribusiness scenario. • Record each problem and one recommended solution • Prepare a delegation plan for one agribusiness manager.	Guide students to: • Design an organisational structure for one hypothetical agribusiness enterprise; draw the organogram and label all positions • Assign authority, responsibility and accountability for five roles in the designed structure; record each assignment and justification • Identify two coordination problems in a provided agribusiness scenario; record each problem and	Organisational structure design guide, authority assignment template, agribusiness coordination scenario, delegation plan template.

	organisation			• Record tasks to delegate, person delegated to and control mechanism • Present the organisational design to the class including structure chosen, authority flows and coordination mechanisms	one recommended solution • Prepare a delegation plan for one agribusiness manager; record tasks to delegate, person delegated to and control mechanism • Present the organisational design to the class including structure chosen, authority flows and coordination mechanisms	
GENERAL OBJECTIVE 4.0: Understand leadership and human resource management in agribusiness						
8–10	4.1 Describe leadership styles and their application in agribusiness management 4.2 Explain how to motivate agribusiness workers using motivation theories 4.3 Describe human resource planning:	• Describe leadership styles with agribusiness application examples • Explain motivation theories with agribusiness worker examples • Describe HR planning steps with an agribusiness recruitment example	Leadership styles guide, motivation theories guide, HR planning guide, performance appraisal form, labour relations guide, projector.	• Identify the leadership style of one agribusiness manager visited • Record style, evidence observed and its effect on workers • Prepare a staff motivation plan for one agribusiness enterprise • Record five	Guide students to: • Identify the leadership style of one agribusiness manager visited; record style, evidence observed and its effect on workers • Prepare a staff motivation plan	Leadership style identification guide, motivation plan template, job description template, performance appraisal form, labour conflict scenario.

	recruitment, selection and training in agribusiness 4.4 Explain performance appraisal and employee development in agribusiness 4.5 Describe labour relations and conflict management in agribusiness enterprises	• Explain performance appraisal with a farm enterprise example • Explain labour relations and conflict management with local examples		motivators, their cost and expected impact • Write a job description for one agribusiness staff position including his/her duties, qualifications, skills and reporting line • Conduct a mock performance appraisal for one agribusiness role • Record performance criteria, rating and one development action • Resolve a provided agribusiness labour conflict scenario • Record the conflict, mediation steps and resolution reached	for one agribusiness enterprise; record five motivators, their cost and expected impact • Write a job description for one agribusiness staff position; include duties, qualifications, skills and reporting line • Conduct a mock performance appraisal for one agribusiness role; record performance criteria, rating and one development action • Resolve a provided agribusiness labour conflict scenario; record the conflict, mediation steps and resolution reached	

GENERAL OBJECTIVE 5.0: Understand control systems and performance management						
11–13	5.1 Describe the management control process: setting standards, measuring performance and corrective action 5.2 Describe key performance indicators (KPI) used in agribusiness management 5.3 Explain budgetary control as a management tool in agribusiness 5.4 Describe how to design a performance dashboard for an agribusiness enterprise 5.5 Explain how Total Quality Management (TQM) applies to agribusiness operations	• Explain the control process with an agribusiness production example • Describe KPIs for agribusiness with examples from farm, processing and marketing operations • Explain budgetary control; demonstrate variance analysis for one agribusiness • Demonstrate performance dashboard design for one agribusiness enterprise • Explain TQM principles with a Nigerian agribusiness application	Control process diagram, agribusiness KPI list, budgetary control guide, performance dashboard template, TQM guide, projector.	• Set five KPIs for one agribusiness enterprise. • Record each KPI, target, measurement method and frequency • Prepare a monthly budget for one agribusiness activity. • Record budgeted income, expenses and profit • Calculate budget variances for a provided agribusiness scenario • Rrecord each variance, type (favourable or adverse) and corrective action • Design a performance dashboard for one agribusiness enterprise • Record four indicators with current value, target and status • Prepare a quality control checklist for one agribusiness product • Record quality criteria,	Guide students to: • Set five KPIs for one agribusiness enterprise; record each KPI, target, measurement method and frequency • Prepare a monthly budget for one agribusiness activity; record budgeted income, expenses and profit • Calculate budget variances for a provided agribusiness scenario; record each variance, type (favourable or adverse) and corrective action • Design a performance dashboard for one agribusiness enterprise; record four indicators	Agribusiness KPI template, budget template, variance analysis scenario, performance dashboard template, quality control checklist template.

				acceptable standard and inspection method	with current value, target and status • Prepare a quality control checklist for one agribusiness product; record quality criteria, acceptable standard and inspection method	
GENERAL OBJECTIVE 6.0: Understand agribusiness ethics and corporate governance						
14–15	6.1 Define business ethics 6.2 Explain the importance of business ethics in agribusiness management 6.3 Describe ethical issues common in Nigerian agribusinesses: adulteration, false labelling and bribery 6.4 Explain corporate social responsibility (CSR) and its application in agribusiness enterprises	• Discuss business ethics; explain importance with agribusiness examples • Describe ethical issues with Nigerian agribusiness case examples • Explain CSR with Nigerian agribusiness CSR programme examples • Explain corporate governance principles with agribusiness board example • Explain ethical standard adoption	Business ethics guide, Nigerian agribusiness ethical issues cases, CSR examples, corporate governance guide, projector.	• Identify three ethical issues in a provided agribusiness scenario • Record each issue, its harm and one recommended ethical response • Prepare a code of ethics for one agribusiness enterprise • Record five ethical standards with justification for each • Research one Nigerian agribusiness CSR programme • Record enterprise, CSR activity, beneficiaries and	Guide students to: • Identify three ethical issues in a provided agribusiness scenario; record each issue, its harm and one recommended ethical response • Prepare a code of ethics for one agribusiness enterprise; record five ethical standards with justification for each • Research one	Business ethics scenario, code of ethics template, CSR research guide, corporate governance evaluation form.

	6.5 Describe the principles of good corporate governance in agribusiness 6.6 Explain how Nigerian agribusiness enterprises can adopt and enforce ethical standards	with policy and enforcement examples		impact • Evaluate the corporate governance of one agribusiness enterprise • Record governance structure, transparency practices and gaps identified • Present the agribusiness code of ethics to the class • Create visual content to explain the standards, enforcement mechanism and expected outcomes	Nigerian agribusiness CSR programme; record enterprise, CSR activity, beneficiaries and impact • Evaluate the corporate governance of one agribusiness enterprise; record governance structure, transparency practices and gaps identified • Present the agribusiness code of ethics to the class; explain the standards, enforcement mechanism and expected outcomes	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

AGRICULTURAL MARKETING AND CONSUMER BEHAVIOUR

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRICULTURAL MARKETING AND CONSUMER BEHAVIOUR	**COURSE CODE: ABM 312**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in agricultural marketing principles, consumer behaviour analysis and marketing strategy for agribusiness enterprises.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand agricultural marketing concepts and systems; 2.0 Understand market research and consumer behaviour analysis; 3.0 Know marketing mix strategies in agribusiness; 4.0 Understand agricultural commodity pricing and market intelligence; 5.0 Know digital marketing in agribusiness; 6.0 Understand agricultural marketing channels and logistics.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRICULTURAL MARKETING AND CONSUMER BEHAVIOUR	**COURSE CODE: ABM 312**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in agricultural marketing principles, consumer behaviour analysis and marketing strategy for agribusiness enterprises.		
GENERAL OBJECTIVE 1.0: Understand agricultural marketing concepts and systems		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1–2	1.1 Define agricultural marketing 1.2 Explain the importance of agricultural marketing in agribusiness value chain 1.3 Explain the components of an agricultural marketing system: assemblers, wholesalers and retailers 1.4 Explain the functions of agricultural marketing: buying, selling, storage,	• Discuss agricultural marketing; explain importance with value chain diagram • Describe marketing system components with Nigerian commodity market examples • Describe marketing functions with practical	Agricultural marketing value chain diagram, marketing system components chart, marketing functions guide, problems and solutions guide, projector.	• Visit one agricultural market near the college • Record market type, actors observed, commodities traded and one marketing problem • Map the marketing system for one Nigerian agricultural commodity • Record each actor, their role and margin • Identify three agricultural marketing problems in the local area. • Record each problem,	Guide students to: • Visit one agricultural market near the college; record market type, actors observed, commodities traded and one marketing problem • Map the marketing system for one Nigerian agricultural commodity; record each actor, their role and margin • Identify three agricultural marketing problems in the local area; record each problem, cause and one	Market visit guide, marketing system map template, problem identification worksheet, marketing functions analysis template.

	transport and grading 1.5 Describe the problems of agricultural marketing in Nigeria and their effects on farmers 1.6 Explain how modern marketing systems improve agricultural commodity value and farmer income	examples for each • Describe marketing problems with Nigerian rural market examples • Explain modern marketing system improvements with case studies		cause and one recommended solution • Prepare a marketing functions analysis for one commodity • Record each function, how it is performed and its cost • Present the commodity marketing system map to the class • Identify each actor and two efficiency improvement opportunities	recommended solution • Prepare a marketing functions analysis for one commodity; record each function, how it is performed and its cost • Present the commodity marketing system map to the class; explain each actor and two efficiency improvement opportunities	
GENERAL OBJECTIVE 2.0: Understand market research and consumer behaviour analysis						
2–4	2.1 Describe the market research process: problem definition, data collection, analysis and reporting 2.2 Describe consumer behaviour: factors influencing purchase decisions for agricultural products 2.3 Explain market segmentation, targeting and positioning for agricultural products 2.4 Describe how to conduct a consumer	• Explain market research process with an agricultural product example • Explain consumer behaviour factors with Nigerian food consumer examples • Explain market segmentation, targeting and positioning with agricultural product examples	Market research process guide, consumer behaviour factors chart, segmentation guide, consumer survey template, projector.	• Design a consumer survey for one agricultural product; include ten relevant questions with response options • Conduct the consumer survey with ten classmates. • Record all responses • Analyse the survey data • Identify two consumer preferences and two barriers to purchase • Prepare a market segmentation plan for	Guide students to: • Design a consumer survey for one agricultural product; include ten relevant questions with response options • Conduct the consumer survey with ten classmates; record all responses • Analyse the survey data; identify two consumer preferences and two barriers to purchase • Prepare a market	Consumer survey template, data analysis guide, market segmentation plan template, field notebooks.

	survey for one agricultural product 2.5 Explain how consumer behaviour insights guide agribusiness marketing decisions	• Describe consumer survey design for one agricultural product • Explain how consumer insights guide marketing decisions with examples		one agricultural product • Identify three segments with profile and marketing approach for each • Present consumer behaviour findings to the class • Present the key insights and two marketing recommendations	segmentation plan for one agricultural product; identify three segments with profile and marketing approach for each • Present consumer behaviour findings to the class; explain key insights and two marketing recommendations	
GENERAL OBJECTIVE 3.0: Know marketing mix strategies in agribusiness						
5–6	3.1 Describe the 4Ps of the marketing mix and their application in agribusiness 3.2 Explain product development and branding strategies for agricultural products 3.3 Describe pricing strategies for agricultural products: cost-plus, competitive and value-based 3.4 Describe distribution channels for agricultural products and how to select the most appropriate 3.5 Explain promotional	• Explain the 4Ps with Nigerian agribusiness examples for each with emphasis on the value added • Explain product development and branding with Nigerian food brand examples • Describe pricing strategies; demonstrate cost-plus pricing for one agricultural product • Describe distribution channels with	4Ps guide, product development and branding examples, pricing strategy guide, distribution channel guide, promotional strategy examples, projector.	• Develop a marketing mix plan for one agricultural product. • Record product, price, place and promotion decisions • Design a brand identity for one agricultural product. • Record brand name, logo concept, packaging and tagline • Calculate the selling price for one agricultural product using cost-plus pricing • Record all cost items, margin and final price • Identify the most	Guide students to: • Develop a marketing mix plan for one agricultural product; record product, price, place and promotion decisions • Design a brand identity for one agricultural product; record brand name, logo concept, packaging and tagline • Calculate the selling price for one agricultural product using cost-plus pricing; record all cost items, margin and final price • Identify the most appropriate distribution	Marketing mix plan template, brand identity design guide, cost-plus pricing worksheet, distribution channel guide, promotional plan template, field notebooks.

	strategies for agribusiness: advertising, sales promotion and digital marketing	examples and channel selection criteria • Explain promotional strategies with Nigerian agricultural promotion examples		appropriate distribution channel for one agricultural product • Record channel, justification and margin at each stage • Prepare a promotional plan for one agricultural product • Record three promotional methods, target audience and estimated cost	channel for one agricultural product; • Record channel, justification and margin at each stage • Prepare a promotional plan for one agricultural product. • Record three promotional methods, target audience and estimated cost	
GENERAL OBJECTIVE 4.0: Understand agricultural commodity pricing and market intelligence						
7–8	4.1 Describe factors that determine agricultural commodity prices in Nigeria 4.2 Explain price transmission and how farm gate prices relate to retail prices 4.3 Describe how to collect and analyse agricultural market price data 4.4 Explain market information systems available for Nigerian agricultural commodities 4.5 Describe how to use	• Explain commodity price determinants with Nigerian market examples • Explain price transmission with a Nigerian commodity price chain example • Demonstrate market price data collection and analysis • Describe market information systems: AFEX, commodity boards	Commodity price determinants guide, price transmission diagram, market price data collection form, market information systems guide, projector.	• Collect price data for one agricultural commodity from three markets over two weeks; record commodity, market, date and price for each observation • Calculate price margins between farm gate, wholesale and retail for one commodity. • Record margin at each level and percentage of retail price • Access one digital	Guide students to: • Collect price data for one agricultural commodity from three markets over two weeks; record commodity, market, date and price for each observation • Calculate price margins between farm gate, wholesale and retail for one commodity; record margin at each level and percentage of retail price • Access one digital agricultural price platform; record prices for five commodities and	Market price data collection form, price margin calculation worksheet, digital price platform access, price intelligence report template, field notebooks.

	price intelligence in agribusiness buying and selling decisions	and digital price platforms • Explain how price intelligence guides agribusiness decisions with examples		agricultural price platform • Record prices for five commodities and compare with local market prices • Prepare a market price intelligence report for one commodity. • Record price trend, seasonal pattern and one marketing recommendation • Present the price intelligence report to the class. • Explain price findings and recommended buy or sell decision	compare with local market prices • Prepare a market price intelligence report for one commodity; record price trend, seasonal pattern and one marketing recommendation • Present the price intelligence report to the class; explain price findings and recommended buy or sell decision	
GENERAL OBJECTIVE 5.0: Know digital marketing in agribusiness						
9–11	5.1 Describe digital marketing channels used in agribusiness: social media, e-commerce and messaging platforms 5.2 Explain how to create an agribusiness digital marketing strategy 5.3 Describe how to use WhatsApp Business, Instagram and	• Describe digital marketing channels with Nigerian agribusiness examples for each • Discuss digital marketing strategy development for one agribusiness	Digital marketing channels guide, digital marketing strategy template, smartphone, WhatsApp Business, Instagram, e-commerce platform, projector.	• Develop a digital marketing strategy for one agricultural product • Rrecord channels, content types, schedule and budget • Set up a WhatsApp Business catalogue for one agribusiness product.	Guide students to: • Develop a digital marketing strategy for one agricultural product; record channels, content types, schedule and budget • Set up a WhatsApp Business catalogue for one agribusiness product; record registration steps, catalogue entries and first product listed	Digital marketing strategy template, smartphone, WhatsApp Business, Instagram, Facebook, e-commerce platform, field notebooks.

	Facebook for agribusiness product marketing 5.4 Explain how to list agribusiness products on e-commerce platforms 5.5 Describe how to measure digital marketing performance for an agribusiness	• Describe WhatsApp Business, Instagram and Facebook product marketing setup • Describe agribusiness product listing on one e-commerce platform • Explain digital marketing performance measurement using reach, engagement and sales metrics		• Record registration steps, catalogue entries and first product listed • Create three social media posts for one agribusiness product; record platform, content, target audience and expected reach for each • Identify one agribusiness product on an e-commerce platform. • Record listing steps, price, description and product photographs taken • Evaluate digital marketing performance for one campaign; record reach, engagement, inquiries generated and two improvements recommended	• Create three social media posts for one agribusiness product; record platform, content, target audience and expected reach for each • List one agribusiness product on an e-commerce platform; record listing steps, price, description and product photographs taken • Evaluate digital marketing performance for one campaign; record reach, engagement, inquiries generated and two improvements recommended	
GENERAL OBJECTIVE 6.0: Understand agricultural marketing channels and logistics						
12–15	6.1 Describe types of agricultural marketing channels: direct, short	• Describe marketing channel types	Marketing channel types diagram, channel	• Map the marketing channels for one Nigerian agricultural	Guide students to: • Map the marketing channels for one Nigerian	Marketing channel mapping template, channel

	and long channels 6.2 Explain how to select the appropriate marketing channel for a given agribusiness situation 6.3 Describe the role of aggregators, cooperatives and commodity exchanges in agricultural marketing 6.4 Explain transport, storage and packaging logistics in agricultural marketing 6.5 Describe how to develop an agricultural marketing channel strategy for an agribusiness enterprise	with Nigerian commodity examples for each • Explain channel selection criteria with decision examples • Explain aggregator, cooperative and commodity exchange roles with Nigerian examples • Explain transport, storage and packaging logistics in agricultural marketing • Discuss marketing channel strategy development for one agribusiness	selection criteria guide, aggregator and exchange role guide, logistics guide, marketing channel strategy template, projector.	commodity. • Record each channel, actors, margins and product quality at each stage • Select the most appropriate marketing channel for one agribusiness product. • Record channel, justification and expected margin • Visit one aggregator or cooperative. • Record its role, services to members, commodities handled and one improvement recommended • Prepare a logistics plan for one agribusiness product from farm to market. • Record transport, storage, packaging and cost for each step • Develop a marketing channel strategy for one agribusiness enterprise • Record channels,	agricultural commodity; record each channel, actors, margins and product quality at each stage • Select the most appropriate marketing channel for one agribusiness product; record channel, justification and expected margin • Visit one aggregator or cooperative; record its role, services to members, commodities handled and one improvement recommended • Prepare a logistics plan for one agribusiness product from farm to market; record transport, storage, packaging and cost for each step • Develop a marketing channel strategy for one agribusiness enterprise; record channels, target customers, margins and implementation steps	selection guide, aggregator visit guide, logistics plan template, marketing channel strategy template, field notebooks.

				target customers, margins and implementation steps		

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

NATIONAL BOARD FOR TECHNICAL EDUCATION
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AGRICULTURAL FINANCE AND INVESTMENT ANALYSIS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRICULTURAL FINANCE AND INVESTMENT ANALYSIS	**COURSE CODE: ABM 313**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: THIS COURSE IS DESIGNED TO EQUIP STUDENTS WITH KNOWLEDGE AND SKILLS IN AGRICULTURAL FINANCE, INVESTMENT ANALYSIS AND CAPITAL MANAGEMENT FOR AGRIBUSINESS ENTERPRISES.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand agricultural finance and sources of funds; 2.0 Know time value of money and investment appraisal; 3.0 Know capital budgeting for agribusiness investments; 4.0 Understand credit analysis and loan management; 5.0 Know financial statement analysis for agribusiness; 6.0 Understand Agri-fintech and digital financial services.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT						
COURSE TITLE: AGRICULTURAL FINANCE AND INVESTMENT ANALYSIS			COURSE CODE: ABM 313		CONTACT HOURS: 3 HOURS/WEEK	
YEAR: I SEMESTER: I			CREDIT UNIT: 3		THEORETICAL: 1 HOUR/WEEK	
			PRE-REQUISITE:		PRACTICAL: 2 HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
Goal: This course is designed to equip students with knowledge and skills in agricultural finance, investment analysis and capital management for agribusiness enterprises.						
General objective 1.0: Understand agricultural finance and sources of funds						
THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES
1 – 2	1.1 Define agricultural finance 1.2 Explain the importance of agricultural finance for agribusiness development 1.3 Describe the sources of agricultural finance in Nigeria: formal, semi-formal and informal 1.4 Explain the role of	• Explain agricultural finance; explain importance with agribusiness development examples • Describe finance sources with Nigerian examples for each category • Explain CBN, BOA, NIRSAL and commercial bank roles in agricultural finance • Describe government	Agricultural finance sources guide, CBN and BOA role descriptions, government programme guide, finance access guide, projector.	• Research two agricultural finance sources available to a Nigerian agribusiness. • Record source, type, amount, interest rate and eligibility • Research one government agricultural finance programme. • Record objectives, eligibility, loan amount and application process • Prepare a loan	Guide students to: • Research two agricultural finance sources available to a Nigerian agribusiness; record source, type, amount, interest rate and eligibility • Research one government agricultural finance programme; record objectives, eligibility, loan	Agricultural finance sources research guide, government programme guide, loan application package template, agrifintech research guide, field notebooks.

	CBN, BOA, NIRSAL, BOI, World Bank, AfDB and commercial banks in agricultural finance 1.5 Describe government agricultural finance programmes: AGSMEIS, CACS and anchor borrowers 1.6 Explain how agribusiness enterprises can access agricultural finance in Nigeria	finance programmes with eligibility and application requirements • Explain finance access steps for Nigerian agribusiness enterprises		application package for one agribusiness enterprise including business plan summary, financial projections and collateral statement • Identify two agri-fintech platforms providing credit to Nigerian farmers • Record platform, services, interest rate and how to access • Present the loan application package to the class • Create visual content to explain enterprise, finance needed and repayment plan	amount and application process • Prepare a loan application package for one agribusiness enterprise; include business plan summary, financial projections and collateral statement • Identify two agrifintech platforms providing credit to Nigerian farmers; record platform, services, interest rate and how to access • Present the loan application package to the class; explain enterprise, finance needed and repayment plan	
GENERAL OBJECTIVE 2.0: Know time value of money and investment appraisal						
3– 4	1.7 Explain the time value of money: present value, future value and discount rate	• Explain time value of money with present and future value calculation examples • Describe investment	Time value of money guide, investment appraisal methods guide, NPV	• Calculate present value and future value for three agribusiness investment scenarios. • Record all calculation	Guide students to: • Calculate present value and future value for three agribusiness	Present value table, NPV calculation worksheet, IRR calculation guide, payback period

	1.8 Describe investment appraisal methods: NPV, IRR, BCR and payback period 1.9 Explain how to calculate NPV for an agribusiness investment 1.10 Describe how to interpret investment appraisal results and make investment decisions 1.11 Explain the limitations of investment appraisal methods in agribusiness	appraisal methods with decision rules for each • Explain NPV calculation for a maize processing enterprise • Explain result interpretation with decision examples for each method • Explain limitations of appraisal methods in the agribusiness context	calculation worksheet, present value table, projector.	steps • Calculate NPV for one agribusiness investment. • Record cash flows, discount rate, NPV and investment decision • Calculate IRR for one agribusiness investment using trial and error. • Record iterations, final IRR and investment decision • Calculate payback period for two agribusiness investments • Record annual cash flows, cumulative flows and payback year for each • Use NPV and payback period to compare two agribusiness investments. • Record results for each and state the preferred investment with justification	investment scenarios; record all calculation steps • Calculate NPV for one agribusiness investment; record cash flows, discount rate, NPV and investment decision • Calculate IRR for one agribusiness investment using trial and error; record iterations, final IRR and investment decision • Calculate payback period for two agribusiness investments; record annual cash flows, cumulative flows and payback year for each • Compare two agribusiness investments using NPV and payback period; record results for each and state the preferred	worksheet, investment comparison template, field notebooks.

					investment with justification	
GENERAL OBJECTIVE 3.0: Know capital budgeting for agribusiness investments						
5– 6	3.1 Define capital budgeting 3.2 Explain the importance of capital budgeting in agribusiness investment planning 3.3 Describe the capital budgeting process: identification, evaluation, selection and implementation 3.4 Explain how to prepare cash flow projections for a capital investment in agribusiness 3.5 Describe risk assessment in capital budgeting: sensitivity analysis and scenario analysis 3.6 Explain how to prioritise competing capital investment	• Explain capital budgeting; explain importance with agribusiness examples • Describe capital budgeting process with a poultry enterprise example • Explain cash flow projection preparation for one capital investment • Discuss sensitivity analysis for one agribusiness capital project • Explain investment prioritisation with a scoring matrix example	Capital budgeting process guide, cash flow projection template, sensitivity analysis guide, investment scoring matrix, projector.	• Prepare a capital investment proposal for one agribusiness project. • Record investment description, cost, expected benefits and payback • Prepare a five-year cash flow projection for one agribusiness capital investment. • Record all inflows, outflows and net cash flow per year • Conduct a sensitivity analysis on the cash flow projection. • Record how NPV changes when revenue falls by 10% and costs rise by 10% • Evaluate two competing agribusiness capital proposals using NPV. • Record results and recommend the preferred investment	Guide students to: • Prepare a capital investment proposal for one agribusiness project; record investment description, cost, expected benefits and payback • Prepare a five-year cash flow projection for one agribusiness capital investment; record all inflows, outflows and net cash flow per year • Conduct a sensitivity analysis on the cash flow projection; record how NPV changes when revenue falls by 10% and costs rise by 10% • Evaluate two competing agribusiness capital proposals using	Capital investment proposal template, cash flow projection template, sensitivity analysis guide, investment comparison worksheet, field notebooks.

	proposals in agribusiness			• Present the capital investment proposal to the class; explain the investment, cash flows, NPV and investment decision	NPV; record results and recommend the preferred investment • Present the capital investment proposal to the class; explain the investment, cash flows, NPV and investment decision	
GENERAL OBJECTIVE 4.0: Understand credit analysis and loan management						
7– 8	4.1 Describe the principles of credit analysis: the 5Cs of credit 4.2 Explain how to assess the creditworthiness of an agribusiness borrower 4.3 Describe loan repayment methods used in agricultural finance 4.4 Explain how to calculate loan repayment schedules for agribusiness loans	• Explain the 5Cs of credit with agribusiness borrower examples • Discuss creditworthiness assessment for one agribusiness enterprise • Describe loan repayment methods with calculation examples • Describe amortisation schedule calculation for one agribusiness loan • Explain credit risk management in	5Cs of credit guide, creditworthiness assessment form, loan repayment methods guide, amortisation calculation worksheet, credit risk guide, projector.	• Assess the creditworthiness of a provided agribusiness enterprise using the 5Cs. • Record each C, evidence and overall creditworthiness rating • Calculate a monthly loan repayment schedule for one agribusiness loan. • Record principal, interest, total payment and outstanding balance for each month • Compare two loan offers for one	Guide students to: • Assess the creditworthiness of a provided agribusiness enterprise using the 5Cs; record each C, evidence and overall creditworthiness rating • Calculate a monthly loan repayment schedule for one agribusiness loan; record principal, interest, total payment and	Creditworthiness assessment form, amortisation calculation worksheet, loan comparison template, credit risk identification guide, loan management plan template, field notebooks.

	4.5 Describe how to manage credit risk in an agribusiness lending context	agribusiness lending		agribusiness. • Record interest rate, total repayment, conditions and recommended choice • Identify two credit risks in one agribusiness loan scenario. • Record each risk and one mitigation measure • Prepare a loan management plan for one agribusiness enterprise. • Record loan amount, repayment schedule and cash flow impact	outstanding balance for each month • Compare two loan offers for one agribusiness; record interest rate, total repayment, conditions and recommended choice • Identify two credit risks in one agribusiness loan scenario; record each risk and one mitigation measure • Prepare a loan management plan for one agribusiness enterprise; record loan amount, repayment schedule and cash flow impact	
GENERAL OBJECTIVE 5.0: Know financial statement analysis for agribusiness						
9– 11	5.1 Explain bookkeeping and its relevance to agribusiness	• Explain bookkeeping and its relevance to agribusiness • Describe three	Financial statements guide, income statement template, financial	• Carry out entering of business transactions in a book for one week considering the	Guide students to: • Carry out entering of business transactions in a	Income statement template, balance sheet template, financial ratio

	5.2 Explain the three main financial statements: income statement, balance sheet and cash flow statement 5.3 Explain how to prepare a simple income statement for an agribusiness enterprise 5.4 Describe financial ratio analysis: profitability, liquidity and leverage ratios 5.5 Explain how to interpret financial ratios to assess agribusiness enterprise performance 5.6 Explain how financial statement analysis guides investment and lending decisions in agribusiness	financial statements with agribusiness examples for each • Explain income statement preparation for one agribusiness enterprise • Explain financial ratios; demonstrate calculation for one agribusiness income statement • Explain ratio interpretation with agribusiness performance benchmarks • Explain how financial analysis guides investment and lending decisions	ratio calculation guide, agribusiness performance benchmarks, projector.	creditor and debtor, stocks/inventory control • Prepare an income statement for one agribusiness enterprise for one year. • Record all income and expense items and calculate net profit • Prepare a simple balance sheet for one agribusiness enterprise; record assets, liabilities and owner's equity • Calculate profitability, liquidity and leverage ratios from the financial statements prepared. • Record all calculation steps • Interpret the calculated ratios • Record what each ratio means for the agribusiness enterprise and one recommended action • Analyse a provided agribusiness financial statement.	book for one week considering the creditor and debtor, stocks/inventory control • Prepare an income statement for one agribusiness enterprise for one year; record all income and expense items and calculate net profit • Prepare a simple balance sheet for one agribusiness enterprise; record assets, liabilities and owner's equity • Calculate profitability, liquidity and leverage ratios from the financial statements prepared; record all calculation steps • Interpret the calculated ratios; record what each ratio means for the agribusiness	calculation guide, agribusiness financial statement for analysis,

				• Identify two financial strengths and two weaknesses and make one investment recommendation	enterprise and one recommended action • Analyse a provided agribusiness financial statement; identify two financial strengths and two weaknesses and make one investment recommendation	
GENERAL OBJECTIVE 6.0: Understand agrifintech and digital financial services						
12– 15	4.6 Define agrifintech 4.7 Describe the role of agrifintech in transforming agricultural finance in Nigeria 4.8 Describe digital payment systems used in agribusiness: mobile money, POS and USSD 4.9 Describe agrifintech platforms providing credit, insurance and savings to Nigerian	• Explain agrifintech; explain its transformative role with Nigerian examples • Describe digital payment systems with agribusiness application examples • Describe agrifintech credit, insurance and savings platforms with Nigerian examples • Explain blockchain application in agricultural finance and trade	Agrifintech guide, digital payment systems guide, Nigerian agrifintech platform descriptions block chain application guide, digital service adoption guide, projector.	• Research two agri-fintech credit platforms in Nigeria. • Record platform, services, interest rate, eligibility and how to access • Use one mobile money platform for a mock agribusiness transaction. • Record setup steps, transaction performed and fees charged • Research one agrifintech insurance product for farmers. • Record product,	Guide students to: • Research two agrifintech credit platforms in Nigeria; record platform, services, interest rate, eligibility and how to access • Set up and use one mobile money platform for a mock agribusiness transaction; record setup steps, transaction performed and fees charged	Agrifintech research guide, smartphone, mobile money platform, agrifintech insurance research guide, digital financial services adoption plan template, field notebooks.

	farmers 4.10 Explain how block chain technology is being applied in agricultural finance and trade 4.11 Explain how agribusiness enterprises can adopt digital financial services for improved efficiency	• Explain digital financial service adoption steps for agribusiness enterprises		coverage, premium and how to claim • Evaluate the suitability of two digital payment methods for one agribusiness enterprise • Record method, advantages, limitations and recommendation • Prepare a digital financial services adoption plan for one agribusiness enterprise. • Record services, implementation steps and expected benefits	• Research one agri-fintech insurance product for farmers; record product, coverage, premium and how to claim • Evaluate the suitability of at least two digital payment methods for one agribusiness enterprise; record method, advantages, limitations and recommendation • Prepare a digital financial services adoption plan for one agribusiness enterprise; record services, implementation steps and expected benefits	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

COOPERATIVE AND ENTERPRISE DEVELOPMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: COOPERATIVE AND ENTERPRISE DEVELOPMENT	**COURSE CODE: ABM 314**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in cooperative organisation, enterprise development and management for agribusiness.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand cooperative principles and types; 2.0 Know cooperative formation and registration; 3.0 Understand cooperative management and governance; 4.0 Understand enterprise development principles in agribusiness; 5.0 Know business model development for cooperative enterprises; 6.0 Understand cooperative enterprise financing and growth.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: COOPERATIVE AND ENTERPRISE DEVELOPMENT	**COURSE CODE: ABM 314**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in cooperative organisation, enterprise development and management for agribusiness.		
GENERAL OBJECTIVE 1.0: Understand cooperative principles and types		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 2	1.1 Define cooperatives 1.2 Explain the International Cooperative Alliance (ICA) cooperative principles 1.3 Describe types of cooperatives in Nigerian agribusiness: producer, consumer, credit and marketing cooperatives 1.4 Explain the advantages of cooperative	• Explain cooperatives; • Explain ICA principles with Nigerian examples • Describe cooperative types with Nigerian agribusiness examples for each • Explain advantages with smallholder income and market access evidence • Explain cooperative role in value chains with Nigerian	ICA cooperative principles guide, cooperative types chart, cooperative advantages data, value chain role guide, challenges and solutions guide, projector.	• Visit one agricultural cooperative near the college. • Record type, membership, activities, governance structure and challenges observed • Classify five Nigerian agricultural cooperatives by type. • Record cooperative name, type and main activity • Identify three advantages a cooperative give to its	Guide students to: • Visit one agricultural cooperative near the college; record type, membership, activities, governance structure and challenges observed • Classify five Nigerian agricultural cooperatives by type; record	Cooperative visit guide, classification worksheet, cooperative advantages evidence guides, value chain mapping template, cooperative challenges report template, field notebooks.

	organisation for smallholder agribusiness 1.5 Describe the role of cooperatives in agricultural value chain development 1.6 Explain the challenges facing agricultural cooperatives in Nigeria and how to address them	examples • Describe cooperative challenges; discuss solutions for each		members compared with individual farming; record each advantage with evidences • Map the value chain roles of one cooperative in the local area. • Record each role, value added and income generated for members • Prepare a one-page report on the challenges facing cooperatives in the local community. • Record two challenges and one recommended solution for each	cooperative name, type and main activity • Identify three advantages a cooperative give to its members compared with individual farming; record each advantage with evidences • Map the value chain roles of one cooperative in the local area; record each role, value added and income generated for members • Prepare a one-page report on the challenges facing cooperatives in the local community; record two challenges and one recommended solution for each	
GENERAL OBJECTIVE 2.0: Know cooperative formation and registration						
3– 4	2.1 Describe the steps for forming an agricultural	• Describe cooperative formation steps with a Nigerian example	Cooperative formation guide, cooperative	• Prepare a cooperative formation plan for one agricultural enterprise.	Guide students to: • Prepare a cooperative	Cooperative formation plan template,

	cooperative in Nigeria 2.2 Describe the registration requirements for cooperatives under Nigerian cooperative law 2.3 Explain how to prepare a cooperative constitution and bye-laws 2.4 Describe the roles and responsibilities of cooperative officers 2.5 Explain how to recruit and retain cooperative members	• Explain registration requirements under Nigerian cooperative law • Discuss cooperative constitution and bye-laws preparation • Describe cooperative officer roles with a cooperative organogram • Explain member recruitment and retention strategies	registration requirements, constitution and bye-laws template, cooperative officer roles chart, member recruitment guide, projector.	• Record membership target, type, objectives and initial activities • Prepare a cooperative registration checklist. • Record all required documents, fees and submitting authority • Draft a simple cooperative constitution for a student agribusiness cooperative including objectives, membership rules, governance and financial management • Assign roles and responsibilities for five cooperative officer positions. • Record title, duties, authority and accountability for each • Develop a member recruitment strategy for a cooperative. • Record target group, recruitment message, incentives and timeline	formation plan for one agricultural enterprise; record membership target, type, objectives and initial activities • Prepare a cooperative registration checklist; record all required documents, fees and submitting authority • Draft a simple cooperative constitution for a student agribusiness cooperative; include objectives, membership rules, governance and financial management • Assign roles and responsibilities for five cooperative officer positions; record title,	registration checklist template, cooperative constitution template, officer roles assignment form, member recruitment strategy template, field notebooks.

					duties, authority and accountability for each • Develop a member recruitment strategy for a cooperative; record target group, recruitment message, incentives and timeline	
GENERAL OBJECTIVE 3.0: Understand cooperative management and governance						
5– 6	3.1 Describe cooperative governance structures: general assembly, board and management 3.2 Explain how to conduct a cooperative general meeting: agenda, quorum and decision-making 3.3 Describe cooperative financial management: savings, shares, dividends and audit 3.4 Explain how to	• Describe governance structures with a cooperative organisational diagram • Demonstrate general meeting procedure with agenda and quorum requirements • Describe cooperative financial management with calculation examples • Explain conflict management in cooperatives with role-play scenarios	Cooperative governance diagram, general meeting guide, cooperative financial management guide, conflict management scenarios, performance monitoring form, projector.	• Facilitate a simulated cooperative general meeting. • Record agenda, quorum, issues discussed and decisions made • Prepare a cooperative financial statement for one year. • Record savings, shares, loan disbursed, income and dividend declared • Resolve a provided cooperative conflict scenario; record conflict, mediation steps and resolution reached	Guide students to: • Facilitate a simulated cooperative general meeting; record agenda, quorum, issues discussed and decisions made • Prepare a cooperative financial statement for one year; record savings, shares, loan disbursed, income and dividend	General meeting guide, cooperative financial statement template, conflict resolution scenario, cooperative performance scorecard, annual report template, field notebooks.

	manage conflicts within a cooperative 3.5 Describe performance monitoring and reporting for cooperative enterprises	• Explain performance monitoring and reporting for cooperatives		• Conduct a performance review of one cooperative using a provided scorecard; record scores and two recommendations • Prepare a cooperative annual report for one year. • Record activities, financial summary and plans for the next year	declared • Resolve a provided cooperative conflict scenario; record conflict, mediation steps and resolution reached • Conduct a performance review of one cooperative using a provided scorecard; record scores and two recommendations • Prepare a cooperative annual report for one year; record activities, financial summary and plans for the next year	
GENERAL OBJECTIVE 4.0: Understand enterprise development principles in agribusiness						
7-9	4.1 Define enterprise development 4.2 Explain the importance of enterprise development in agribusiness	• Explain enterprise development; explain importance with agribusiness examples • Describe enterprise development process with a Nigerian	Enterprise development process guide, opportunity identification techniques, feasibility	• Identify three agribusiness enterprise opportunities in the local area. • Record opportunity, market, estimated income and start-up	Guide students to: • Identify three agribusiness enterprise opportunities in the local area; record	Opportunity identification worksheet, feasibility assessment template, customer

	4.3 Describe the enterprise development process: opportunity identification, planning, launch and growth 4.4 Explain how to identify viable agribusiness enterprise opportunities 4.5 Describe how to conduct a feasibility assessment for a new agribusiness enterprise 4.6 Explain how to manage enterprise growth from start-up to established business	agribusiness case study • Explain opportunity identification techniques with agricultural market examples • Describe feasibility assessment for agribusiness enterprise • Explain enterprise growth management with Nigerian examples	assessment template, enterprise growth guide, projector.	cost for each • Conduct a feasibility assessment for one identified opportunity. • Record market, technical, financial and management feasibility findings • Validate the enterprise idea through interviews with five potential customers. • Record responses and validation conclusion • Prepare an enterprise development timeline from idea to launch. • Record milestones, activities and target dates • Present the enterprise opportunity and feasibility assessment to the class. • Create infographics to explain opportunity, feasibility findings and recommended decision	opportunity, market, estimated income and start-up cost for each • Conduct a feasibility assessment for one identified opportunity; record market, technical, financial and management feasibility findings • Validate the enterprise idea through interviews with five potential customers; record responses and validation conclusion • Prepare an enterprise development timeline from idea to launch; record milestones, activities and target dates • Present the	interview guide, enterprise development timeline template, field notebooks.

					enterprise opportunity and feasibility assessment to the class; explain opportunity, feasibility findings and recommended decision	
GENERAL OBJECTIVE 5.0: Know business model development for cooperative enterprises						
10– 11	5.1 Describe the Business Model Canvas (BMC) and its nine building blocks 5.2 Explain how to complete a Business Model Canvas for an agricultural cooperative 5.3 Describe social enterprise business models applicable to agricultural cooperatives 5.4 Explain how to develop a value proposition for a cooperative enterprise 5.5 Describe how to test and iterate a	• Describe the BMC and its nine building blocks with one agribusiness example • Describe BMC completion for an agricultural cooperative • Describe social enterprise models applicable to cooperatives with examples • Discuss value proposition development for a cooperative enterprise • Explain business model testing and iteration with a lean startup approach	Business Model Canvas, cooperative enterprise examples, social enterprise models guide, value proposition template, business model testing guide, projector.	• Complete a Business Model Canvas for one agricultural cooperative. • Record all nine building blocks with specific details • Develop a value proposition for one cooperative enterprise • Record customer segment, problem solved, solution offered and unique benefit • Design a social enterprise business model for one cooperative. • Record revenue sources, social mission and financial sustainability	Guide students to: • Complete a Business Model Canvas for one agricultural cooperative; record all nine building blocks with specific details • Develop a value proposition for one cooperative enterprise; record customer segment, problem solved, solution offered and unique benefit • Design a social enterprise business model	Business Model Canvas, value proposition template, social enterprise model guide, business model feedback form, revised BMC template,.

	cooperative enterprise business model			• Test the business model by presenting it to five potential cooperative members. • Record feedback and two model changes recommended • Revise the Business Model Canvas based on feedback. • Record changes made and improved model version	for one cooperative; record revenue sources, social mission and financial sustainability • Test the business model by presenting it to five potential cooperative members; record feedback and two model changes recommended • Revise the Business Model Canvas based on feedback; record changes made and improved model version	
GENERAL OBJECTIVE 6.0: Understand cooperative enterprise financing and growth						
12– 15	6.1 Describe the sources of finance for cooperative enterprises in Nigeria 6.2 Explain how cooperative enterprises can access funding from	• Describe cooperative finance sources with Nigerian examples for each • Explain government, donor agencies, commercial institutions access for cooperatives	Cooperative finance sources guide, government and donor funding guide, bankable cooperative business plan template, scale-	• Research two financing sources for cooperative enterprises in Nigeria. • Record source, type, amount, eligibility and application process • Prepare a bankable cooperative enterprise business plan; include	Guide students to: • Research two financing sources for cooperative enterprises in Nigeria; record source, type, amount, eligibility and	Cooperative finance research guide, bankable cooperative business plan template, ROI calculation guide, cooperative

	government, donor agencies, commercial institutions 6.3 Describe how to prepare a bankable cooperative enterprise business plan 6.4 Explain how cooperatives scale up from small to large enterprise operations 6.5 Describe how cooperative networks and alliances support enterprise growth	• Describe bankable cooperative business plan preparation • Explain scale-up strategies for cooperative enterprises with examples • Explain cooperative network and alliance benefits with Nigerian examples	up strategy guide, cooperative network examples, projector.	executive summary, market, operations, governance and financials • Calculate the return on investment for one cooperative enterprise activity; record investment, annual income and payback period • Develop a cooperative scale-up plan from 20 to 100 members. • Record membership growth strategy, additional activities and financial projections • Present the cooperative enterprise business plan to the class as a funding pitch	application process • Prepare a bankable cooperative enterprise business plan; include executive summary, market, operations, governance and financials • Calculate the return on investment for one cooperative enterprise activity; record investment, annual income and payback period • Develop a cooperative scale-up plan from 20 to 100 members; record membership growth strategy, additional activities and financial projections • Present the	scale-up plan template, field notebooks.

					cooperative enterprise business plan to the class as a funding pitch.	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

VALUE CHAIN ANALYSIS AND DEVELOPMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: VALUE CHAIN ANALYSIS AND DEVELOPMENT	**COURSE CODE: ABM 315**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in agricultural value chain analysis, mapping and development for improved agribusiness competitiveness.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand agricultural value chain concepts and frameworks; 2.0 Know value chain mapping for agricultural commodities; 3.0 Understand value chain performance assessment; 4.0 Understand value chain upgrading strategies; 5.0 Know gender inclusion in value chain development; 6.0 Understand digital tools in value chain management.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: VALUE CHAIN ANALYSIS AND DEVELOPMENT	**COURSE CODE: ABM 315**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in agricultural value chain analysis, mapping and development for improved agribusiness competitiveness.		
GENERAL OBJECTIVE 1.0: Understand agricultural value chain concepts and frameworks		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 2	1.1 Define a value chain 1.2 Explain how value chain differs from marketing channel 1.3 Describe the components of an agricultural value chain: input supply, production, processing, marketing and consumption 1.4 Explain value chain frameworks: Porter's value chain,	• Explain value chain; compare with marketing channel using diagrams • Describe value chain components with a Nigerian commodity example • Explain Porter's value chain and M4P framework with agricultural application examples • Explain enabling environment elements	Value chain concept diagrams, Porter's value chain, M4P framework, enabling environment guide, smallholder income evidence, projector.	• Compare the value chain, supply chain and marketing channel for one Nigerian commodity. • Record similarities and differences for each concept • Identify all components of the value chain for one commodity in the local area. • Record component, actors, activities and	Guide students to: • Compare the value chain, supply chain and marketing channel for one Nigerian commodity. • Record similarities and differences for each concept • Identify all components of the value chain for one commodity in the local area.	Value chain concept comparison template, value chain component identification form, enabling environment mapping template, value chain programme research guide, field notebooks, smartphones.

	etc. and the M4P market systems framework 1.5 Describe the enabling environment for agricultural value chains: policy, infrastructure and services 1.6 Explain how value chain development improves smallholder farmer income in Nigeria	with Nigerian agricultural infrastructure examples • Explain value chain development and smallholder income improvement with evidence		value added • Map the enabling environment for one Nigerian commodity value chain • Record policy, infrastructure and service support elements and gaps • Research one successful value chain development programme in Nigeria • Record commodity, intervention, actors involved and income impact • Present the value chain component analysis to the class; explain each component and two development opportunities identified	• Record component, actors, activities and value added • Map the enabling environment for one Nigerian commodity value chain; record policy, infrastructure and service support elements and gaps • Research one successful value chain development programme in Nigeria; record commodity, intervention, actors involved and income impact • Present the value chain component analysis to the class; explain each component and two development opportunities identified	
GENERAL OBJECTIVE 2.0: Know value chain mapping for agricultural commodities						
3– 5	2.1 Describe the value chain mapping process: data collection, actor	• Describe value chain mapping process with a step-by-step guide • Explain primary data	Value chain mapping process guide, data collection tools,	• Collect primary data for one commodity value chain through interviews with three	Guide students to: • Collect primary data for one commodity value chain through	Value chain interview guide, actor classification

	identification and flow mapping 2.2 Explain how to collect primary data for value chain mapping through interviews and observation 2.3 Describe how to identify and classify value chain actors: direct and indirect actors 2.4 Explain how to map product, information and money flows in a value chain 2.5 Describe how to calculate value addition and margins at each value chain stage	collection methods for value chain mapping • Describe actor identification and classification with Nigerian examples • Explain product, information and money flow mapping for one commodity • Describe value addition and margin calculation for each stage	actor classification guide, flow mapping template, value addition calculation worksheet, projector.	value chain actors. • Record actor, role, volume handled, price and margin • Classify all direct and indirect actors in one commodity value chain; record actor name, type, role and location • Map the product, information and money flows for one commodity. • Prepare a complete value chain flow diagram • Calculate net value addition and gross value added at three stages of one commodity value chain. • Record all calculation steps • Prepare a complete value chain map for one commodity including all actors, flows, margins and enabling environment elements	interviews with three value chain actors; record actor, role, volume handled, price and margin • Classify all direct and indirect actors in one commodity value chain; record actor name, type, role and location • Map the product, information and money flows for one commodity; prepare a complete value chain flow diagram • Calculate net value addition and gross value added at three stages of one commodity value chain; record all calculation steps • Prepare a complete value chain map for one commodity; include all actors, flows, margins and enabling environment elements	template, flow mapping template, value addition calculation worksheet, value chain map template, field notebooks.

GENERAL OBJECTIVE 3.0: Understand value chain performance assessment						
6– 7	3.1 Describe performance indicators for agricultural value chains: efficiency, equity and sustainability 3.2 Explain how to assess market competitiveness in an agricultural value chain 3.3 Describe how to identify value chain constraints: bottlenecks and missing links 3.4 Explain how to conduct a value chain SWOT analysis 3.5 Describe how to use value chain performance data to prioritise development interventions	• Describe value chain performance indicators with measurement methods for each • Explain market competitiveness assessment with competitive analysis tools • Explain bottleneck and missing link identification with commodity examples • Describe value chain SWOT analysis for one commodity • Explain how performance data guides development intervention prioritisation	Value chain performance indicators guide, competitiveness assessment tool, bottleneck identification guide, value chain SWOT template, intervention prioritisation tool, projector.	• Assess the performance of one commodity value chain using three indicators • Record indicator, measurement, current performance and gap • Identify three bottlenecks in one commodity value chain • Record bottleneck, stage, cause and impact on farmer income • Conduct a value chain SWOT analysis for one commodity. • Record two items per quadrant with brief explanation • Assess the market competitiveness of one Nigerian commodity in one export market. • Record price, quality, standards and competitive gaps • Prepare a value chain performance report for one commodity • Record all indicators, bottlenecks and two priority interventions	Guide students to: • Assess the performance of one commodity value chain using three indicators; record indicator, measurement, current performance and gap • Identify three bottlenecks in one commodity value chain; record bottleneck, stage, cause and impact on farmer income • Conduct a value chain SWOT analysis for one commodity; record two items per quadrant with brief explanation • Assess the market competitiveness of one Nigerian commodity in one export market; record price, quality, standards and competitive gaps • Prepare a value chain performance report	Value chain performance assessment form, bottleneck identification guide, value chain SWOT template, competitiveness assessment template, value chain performance report template, field notebooks.

					for one commodity; record all indicators, bottlenecks and two priority interventions	
GENERAL OBJECTIVE 4.0: Know value chain upgrading strategies						
8– 10	4.1 Describe value chain upgrading strategies: product, process, functional and chain upgrading 4.2 Explain how to develop a value chain upgrading plan for a specific commodity 4.3 Describe how to facilitate collective action for value chain upgrading 4.4 Explain how contract farming supports value chain upgrading 4.5 Describe how to monitor and evaluate (M&E) value chain upgrading interventions	• Describe upgrading strategies with Nigerian commodity examples for each • Discuss value chain upgrading plan development for one commodity • Explain collective action facilitation with cooperative and association examples • Explain contract farming role in value chain upgrading with examples • Explain M&E of value chain upgrading with indicator examples	Value chain upgrading strategies guide, upgrading plan template, collective action facilitation guide, contract farming guide, M&E framework template, projector.	• Identify one upgrading opportunity for each upgrading strategy type in one commodity value chain • Record strategy, opportunity, expected benefit and actors involved • Develop a value chain upgrading plan for one commodity. • Record interventions, responsible actors, resources, timeline and expected outcomes • Design a collective action model for one value chain upgrading intervention. • Record actors, roles, governance and shared benefit • Prepare a simple contract farming agreement template for one agribusiness; record parties,	Guide students to: • Identify one upgrading opportunity for each upgrading strategy type in one commodity value chain; record strategy, opportunity, expected benefit and actors involved • Develop a value chain upgrading plan for one commodity; record interventions, responsible actors, resources, timeline and expected outcomes • Design a collective action model for one value chain upgrading intervention; record actors, roles, governance and	Value chain upgrading plan template, collective action design template, contract farming agreement template, M&E framework template, field notebooks.

				commodity, quality standards, price and delivery terms for one value • Develop an M&E framework chain upgrading intervention. • Record indicators, targets, data source and measurement frequency	shared benefit • Prepare a simple contract farming agreement template for one agribusiness; record parties, commodity, quality standards, price and delivery terms for one value • Develop an M&E framework chain upgrading intervention; record indicators, targets, data source and measurement frequency	
GENERAL OBJECTIVE 5.0: Understand gender inclusion in value chain development						
11– 12	5.1 Describe gender roles and constraints in Nigerian agricultural value chains 5.2 Explain how to conduct a gender analysis of an agricultural value chain 5.3 Describe strategies for improving women's	• Describe gender roles and constraints with Nigerian value chain examples • Describe gender analysis of one agricultural value chain • Describe women's participation improvement strategies with programme examples • Explain inclusive	Gender roles and constraints guide, gender analysis tool, women's participation strategies, inclusive intervention design guide, gender-responsive outcomes evidence, projector.	• Conduct a gender analysis of one commodity value chain • Record roles of men and women at each stage, constraints and income differences • Identify three gender constraints in the local commodity value chain. • Record each constraint, its effect	Guide students to: • Conduct a gender analysis of one commodity value chain; record roles of men and women at each stage, constraints and income differences • Identify three gender constraints in the local commodity value chain; record each constraint, its	Gender analysis tool, gender constraint identification guide, inclusive intervention design template, sex-disaggregated data collection form, field notebooks.

	participation in agricultural value chains 5.4 Explain how to design inclusive value chain interventions for women and youth 5.5 Describe how gender-responsive value chain development improves enterprise outcomes	intervention design with women and youth engagement examples • Explain gender-responsive outcomes with evidence from Nigerian value chain programmes		and one recommended solution • Design one inclusive value chain intervention for women or youth. • Record objective, activities, target group and expected gender outcome • Collect sex-disaggregated data on participation in one value chain. • Record number of men and women at each stage and calculate participation gap • Present the gender analysis findings to the class. • Present key gender gaps and two gender-responsive recommendations	effect and one recommended solution • Design one inclusive value chain intervention for women or youth; record objective, activities, target group and expected gender outcome • Collect sex-disaggregated data on participation in one value chain; record number of men and women at each stage and calculate participation gap • Present the gender analysis findings to the class and key gender gaps and two gender-responsive recommendations	
GENERAL OBJECTIVE 6.0: Understand digital tools in value chain management						
13– 15	6.1 Describe digital tools used in agricultural value chain management: traceability systems, ERP, mobile apps,	• Describe digital value chain management tools with Nigerian agribusiness examples	Digital value chain tools guide, e-commerce platform examples, digital payment guide,	• Identify two digital tools used in one Nigerian commodity value chain. • Record tool, function, users and impact on	Guide students to: • Research two digital tools used in one Nigerian commodity value chain; record tool, function, users	Digital tool research guide, e-commerce platform, digital payment flow mapping template,

	etc. 6.2 Explain how e-commerce platforms link farmers to buyers in agricultural value chains 6.3 Describe how digital payments and fintech tools improve value chain financial flows 6.4 Explain how digital data collection tools support value chain monitoring 6.5 Describe how to select and implement digital tools for one agricultural value chain	• Explain e-commerce platform role in linking farmers to buyers with examples • Explain digital payment and fintech tool improvement of financial flows • Explain digital data collection for value chain monitoring • Explain digital tool selection and implementation for one value chain	digital data collection tool, digital tool selection guide, projector.	efficiency • Access one e-commerce platform connecting Nigerian farmers to buyers. • Record platform, registration steps, products listed and buyer types • Map the digital payment flows in one commodity value chain. • Record payment method, actors using it and percentage of transactions digital • Use a digital data collection tool to collect value chain monitoring data from five respondents. • Record all responses • Prepare a digital tool adoption plan for one commodity value chain; record tool selected, implementation steps, cost and expected benefit	and impact on efficiency • Access one e-commerce platform connecting Nigerian farmers to buyers; record platform, registration steps, products listed and buyer types • Map the digital payment flows in one commodity value chain; record payment method, actors using it and percentage of transactions digital • Use a digital data collection tool to collect value chain monitoring data from five respondents; record all responses • Prepare a digital tool adoption plan for one commodity value chain; record tool selected, implementation steps, cost and expected benefit	digital data collection tool, digital tool adoption plan template, field notebooks.
COURSE ASSESSMENT:						

Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

DIGITAL AGRIBUSINESS TOOLS AND E-COMMERCE

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: DIGITAL AGRIBUSINESS TOOLS AND E-COMMERCE	**COURSE CODE: ABM 316**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: 1	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in digital agribusiness tools, e-commerce operations and digital enterprise management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the digital agribusiness ecosystem; 2.0 Understand e-commerce platforms for agribusiness; 3.0 Know digital payment and fintech tools in agribusiness; 4.0 Know digital inventory and supply chain tools; 5.0 Understand agribusiness data management and reporting; 6.0 Understand digital business strategy for agribusiness.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: DIGITAL AGRIBUSINESS TOOLS AND E-COMMERCE	**COURSE CODE: ABM 316**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: 1	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in digital agribusiness tools, e-commerce operations and digital enterprise management.		
GENERAL OBJECTIVE 1.0: Understand the digital agribusiness ecosystem		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1– 2	1.1 Describe the digital agribusiness ecosystem: platforms, tools, actors and infrastructure 1.2 Describe the types of agribusiness digital platforms in Nigeria: marketplaces, advisory and fintech 1.3 Explain the role of digital technology in transforming Nigerian	• Describe digital agribusiness ecosystem with a system diagram • Describe digital platform types with Nigerian examples for each • Explain digital transformation impact on Nigerian agribusiness value chains • Explain digital divide with rural Nigeria	Digital agribusiness ecosystem diagram, Nigerian digital platform list, digital transformation examples, digital divide data, adoption strategy template, projector.	• Identify five digital agribusiness platforms in Nigeria • Record platform name, type, services, target users and cost • Classify ten digital tools by type: marketplace, advisory, fintech, logistics and monitoring • Record tool name, type and primary function • Identify two digital	Guide students to: • Research five digital agribusiness platforms in Nigeria; record platform name, type, services, target users and cost • Classify ten digital tools by type: marketplace, advisory, fintech, logistics and monitoring; record tool name, type and	Digital platform research guide, classification worksheet, digital divide barrier guide, digital adoption assessment template, field notebooks.

	agribusiness value chains 1.4 Describe the digital divide and its impact on rural agribusiness innovation adoption in Nigeria 1.5 Explain how to develop a digital agribusiness adoption strategy for a Nigerian enterprise	adoption data • Discuss digital adoption strategy development		divide barriers for one rural agribusiness in the local area; record each barrier and one recommended solution • Prepare a digital agribusiness adoption assessment for one enterprise • Record current digital use, gaps and recommended tools • Present the digital agribusiness platform research to the class. • Prepare presentation slides to explain two platforms and their impact on agribusiness efficiency	primary function • Identify two digital divide barriers for one rural agribusiness in the local area; record each barrier and one recommended solution • Prepare a digital agribusiness adoption assessment for one enterprise; record current digital use, gaps and recommended tools • Present the digital agribusiness platform research to the class; explain two platforms and their impact on agribusiness efficiency	
GENERAL OBJECTIVE 2.0: Understand e-commerce platforms for agribusiness						
2– 4	2.1 Define e-commerce 2.2 Explain B2B, B2C and C2C models in agribusiness 2.3 Describe how to set up an agribusiness	• Explain e-commerce; describe B2B, B2C and C2C models with agribusiness examples	E-commerce model guide, Nigerian e-commerce platforms, smartphone,	• Set up a seller profile on one Nigerian e-commerce platform. • Record registration steps, profile details and verification status	Guide students to: • Set up a seller profile on one Nigerian e-commerce platform; record registration	Smartphones, Nigerian e-commerce platform, WhatsApp Business,

	seller profile on major Nigerian e-commerce platforms 2.4 Describe product listing best practices: photographs, descriptions, pricing and keywords 2.5 Explain how to manage orders, fulfilment and customer service on e-commerce platforms 2.6 Describe how to use social media platforms as an e-commerce channel for agribusiness	• Describe seller profile setup on Jumia, Konga or AgroMall • Demonstrate product listing with quality photographs, descriptions and pricing • Explain order management, fulfilment and customer service on platforms • Describe social media platforms e-commerce setup for agribusiness	WhatsApp Business, product photography guide, order management guide, projector.	• Display three agribusiness products with quality photographs, descriptions and prices. • Record listing steps and product details for each • Respond to three mock customer enquiries about the displayed products; record enquiry, response given and follow-up action • Process a mock e-commerce order from receipt to dispatch • Record order details, fulfilment steps and customer communication • Set up a any social media business profile and product catalogue for one agribusiness • Record setup steps and five products listed	steps, profile details and verification status • Display three agribusiness products with quality photographs, descriptions and prices; record listing steps and product details for each • Respond to three mock customer enquiries about the displayed products; record enquiry, response given and follow-up action • Process a mock e-commerce order from receipt to dispatch; record order details, fulfilment steps and customer communication • Set up a any social media business profile and product catalogue for one agribusiness; record setup steps and five products listed	product photography guide, mock customer enquiries, field notebooks.

GENERAL OBJECTIVE 3.0: Know digital payment and fintech tools in agribusiness						
5– 6	3.1 Describe digital payment systems used in Nigerian agribusiness: mobile money, POS, USSD and bank apps 3.2 Explain how to set up and use a digital payment account for agribusiness transactions 3.3 Describe how USSD codes enable financial access for rural agribusiness operators 3.4 Explain how fintech lending platforms provide credit to agribusiness operators 3.5 Describe digital payment safety: fraud prevention and transaction security in agribusiness	• Describe digital payment systems with agribusiness transaction examples for each • Describe digital payment account setup and use for one agribusiness transaction • Explain USSD code use for financial access in rural agribusiness • Describe fintech lending platforms with Nigerian agribusiness examples • Explain digital payment safety rules with fraud scenario examples	Digital payment systems guide, smartphones, mobile money platform, USSD code guide, fintech lending platform examples, digital payment safety guide, projector.	• Set up one digital payment account for agribusiness use • Record registration steps, features and first transaction performed • Carry out three mock agribusiness digital payment transactions • Record transaction type, amount, steps and confirmation received • Use a USSD code to perform one mobile banking function. • Record code used, service accessed and result • Identify one fintech lending platform for Nigerian agribusiness. • Record platform, loan amount, interest rate and application process • Identify two digital payment fraud risks and describe the correct protective action for each	Guide students to: • Set up one digital payment account for agribusiness use; record registration steps, features and first transaction performed • Carry out three mock agribusiness digital payment transactions; record transaction type, amount, steps and confirmation received • Use a USSD code to perform one mobile banking function; record code used, service accessed and result • Research one fintech lending platform for Nigerian agribusiness; record platform, loan amount, interest rate and application process • Identify two digital payment fraud risks	Smartphones, mobile money platform, USSD codes guide, fintech lending research guide, digital payment fraud risk guide, field notebooks.

					and describe the correct protective action for each	
GENERAL OBJECTIVE 4.0: Know digital inventory and supply chain tools						
7– 9	4.1 Describe digital inventory management tools used in agribusiness: spreadsheets, apps and ERP systems 4.2 Explain how to set up and use a digital inventory system for an agribusiness warehouse 4.3 Describe barcode and QR code systems for agribusiness inventory tracking 4.4 Explain how to use digital tools for procurement and supplier management in agribusiness 4.5 Describe how digital supply chain tools improve efficiency and reduce losses in agribusiness	• Describe digital inventory tools with agribusiness application examples for each • Describe digital inventory system setup for one agribusiness warehouse • Describe barcode and QR code generation and scanning for agribusiness inventory • Explain digital procurement and supplier management tool use • Explain digital supply chain efficiency improvements with data examples	Digital inventory management tools, smartphone, inventory management app, barcode and QR code generator, digital procurement tool, supply chain efficiency data, projector.	• Set up a digital inventory system for one agribusiness warehouse. • Record setup steps, items entered and first stock count performed • Record all stock movements for one week in the digital inventory system; record receipts, issues, balance and any discrepancy found • Generate QR codes for five agribusiness products. • Record product details encoded and test scanning with a smartphone • Prepare a digital supplier record for three suppliers • Record name, contact, commodity, price, payment terms and delivery record • Calculate inventory	Guide students to: • Set up a digital inventory system for one agribusiness warehouse; record setup steps, items entered and first stock count performed • Record all stock movements for one week in the digital inventory system; record receipts, issues, balance and any discrepancy found • Generate QR codes for five agribusiness products; record product details encoded and test scanning with a smartphone • Prepare a digital supplier record for three suppliers; record name, contact, commodity,	Smartphone, inventory management app, barcode and QR code generator, digital supplier record template, inventory efficiency calculation guide, field notebooks.

				efficiency improvement from using digital tracking compared with manual recording; record time saved, errors reduced and losses identified	price, payment terms and delivery record • Calculate inventory efficiency improvement from using digital tracking compared with manual recording; record time saved, errors reduced and losses identified	
GENERAL OBJECTIVE 5.0: Understand agribusiness data management and reporting						
10– 11	5.1 Describe the types of data collected in agribusiness operations: sales, production, market and customer data 5.2 Explain how to use spreadsheets and dashboards for agribusiness data management 5.3 Describe how to generate and interpret agribusiness performance reports from data 5.4 Explain how to use digital survey tools for agribusiness	• Describe agribusiness data types with examples of each from real operations • Explain spreadsheet and dashboard setup for agribusiness data management • Discuss agribusiness performance report generation and interpretation • Describe Google Forms or Kobo for agribusiness market data collection • Explain data protection and privacy in agribusiness digital	Agribusiness data types guide, Excel or Google Sheets, agribusiness dashboard template, Google Forms, data protection guide, projector.	• Enter one month of agribusiness sales and production data into a spreadsheet. • Calculate total income, expenses and profit • Create an agribusiness performance dashboard in Excel or Google Sheets include; sales, stock, customer and financial summary panels • Generate a monthly performance report from the dashboard data. • Record key metrics, trends and two recommendations	Guide students to: • Enter one month of agribusiness sales and production data into a spreadsheet; calculate total income, expenses and profit • Create an agribusiness performance dashboard in Excel or Google Sheets; include sales, stock, customer and financial summary panels • Generate a monthly performance report from the dashboard	Excel or Google Sheets, agribusiness dashboard template, Google Forms, agribusiness performance report template, data management policy template, field notebooks.

	market and customer data collection 5.5 Describe data protection and privacy requirements for agribusiness digital data management	management		• Design a Google Form for an agribusiness customer satisfaction survey; include ten questions and share the link • Prepare a data management policy for one agribusiness enterprise. • Record what data is collected, how stored, who can access and protection measures	data; record key metrics, trends and two recommendations • Design a Google Form for an agribusiness customer satisfaction survey; include ten questions and share the link • Prepare a data management policy for one agribusiness enterprise; record what data is collected, how stored, who can access and protection measures	
GENERAL OBJECTIVE 6.0: Understand digital business strategy for agribusiness						
12– 15	6.1 Describe how to develop a digital transformation strategy for an agribusiness enterprise 6.2 Explain how to integrate digital tools across marketing, finance, operations and	• Discuss digital transformation strategy development for one agribusiness • Explain digital tool integration across agribusiness functions with examples • Explain cybersecurity risks with	Digital transformation strategy template, digital integration guide, cybersecurity risk guide, ROI calculation guide, digital agribusiness future data,	• Develop a digital transformation strategy for one agribusiness enterprise. • Record current state, digital tools to adopt, timeline and expected benefits • Prepare a digital tool integration plan showing how five tools	Guide students to: • Develop a digital transformation strategy for one agribusiness enterprise; record current state, digital tools to adopt, timeline and expected benefits • Prepare a digital tool	Digital transformation strategy template, digital integration plan template, cybersecurity risk guide, ROI calculation guide, field notebooks.

	supply chain in agribusiness 6.3 Describe the cybersecurity risks facing agribusiness digital operations and how to mitigate them 6.4 Explain how to measure the return on investment of digital tools in agribusiness 6.5 Describe the future of digital agribusiness in Nigeria and career opportunities for graduates	agribusiness examples and mitigation measures • Describe ROI calculation for one digital agribusiness tool • Discuss future of digital agribusiness in Nigeria and graduate opportunities	projector.	connect across marketing, finance, operations and supply chain • Identify two cybersecurity risks for one agribusiness digital operation • Record each risk and one protective measure • Calculate the ROI of one digital tool adoption for one agribusiness • Record investment, annual saving and payback period • Present the digital transformation strategy to the class. • Create visual content to explain tools selected, integration plan and expected enterprise benefits	integration plan showing how five tools connect across marketing, finance, operations and supply chain • Identify two cybersecurity risks for one agribusiness digital operation; record each risk and one protective measure • Calculate the ROI of one digital tool adoption for one agribusiness; record investment, annual saving and payback period • Present the digital transformation strategy to the class; explain tools selected, integration plan and expected enterprise benefits	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

MICROECONOMICS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: MICROECONOMICS	**COURSE CODE: ABM 317**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in microeconomic theories and its application to agribusiness decision-making, market analysis, price determination, production efficiency and competitive strategy.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the scope and methods of microeconomics in agribusiness; 2.0 Know demand and supply analysis to agricultural markets; 3.0 Understand consumer theory and behaviour in agribusiness markets; 4.0 Know production theory and cost analysis in agribusiness; 5.0 Understand theory of the firm and their implications for agribusiness; 6.0 Know microeconomic tools for agribusiness pricing and decision-making.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: MICROECONOMICS	**COURSE CODE: ABM 317**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in microeconomic theories and its application to agribusiness decision-making, market analysis, price determination, production efficiency and competitive strategy.		
GENERAL OBJECTIVE 1.0: Understand the scope and methods of microeconomics in agribusiness		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 2	1.1 Define microeconomics 1.2 Distinguish microeconomics from macroeconomics with agribusiness examples 1.3 Explain the concept of scarcity, choice and opportunity cost in agribusiness resource allocation 1.4 Describe the circular flow of economic activity between	• Explain microeconomics; distinguish from macroeconomics with Nigerian agribusiness examples • Explain scarcity, choice and opportunity cost with agribusiness resource allocation examples • Describe circular flow of economic activity with agribusiness household, firm and market examples	Microeconomics and macroeconomics comparison guide, scarcity and opportunity cost guide, circular flow diagram, price signals in agribusiness guide, projector.	• Identify three agribusiness resource allocation decisions involving scarcity and opportunity cost. • Record each decision, alternative foregone, opportunity cost estimated and final choice made • Map the circular flow of economic activity for one Nigerian agribusiness	Guide students to: • Identify three agribusiness resource allocation decisions involving scarcity and opportunity cost. • Record each decision, alternative foregone, opportunity cost estimated and final choice made • Map the circular flow of economic activity for one Nigerian	Opportunity cost analysis worksheet, circular flow diagram template, price data collection form, agricultural commodity price sources, microeconomic analysis brief template, projector, Smartphones, Field notebooks.

	households, firms and markets relevant to agribusiness 1.5 Explain the role of prices as signals in coordinating agribusiness resource allocation decisions 1.6 Describe how microeconomic analysis supports agribusiness planning, pricing and investment decisions	• Explain price signals in agribusiness resource coordination with commodity market examples • Describe microeconomic analysis contribution to agribusiness planning, pricing and investment		commodity. • Record households, firms, factor markets and product markets with flows between each • Collect price data for one agricultural commodity over four weeks. • Record commodity, market, date and price and how price changes signal supply or demand shifts • Apply opportunity cost analysis to one agribusiness investment decision. • Record two alternatives, full costs of each including opportunity costs and recommended choice with rationale • Prepare a one-page microeconomic analysis brief for one agribusiness enterprise. • Record scarcity constraints, key	agribusiness commodity; record households, firms, factor markets and product markets with flows between each • Collect price data for one agricultural commodity over four weeks; record commodity, market, date and price; explain how price changes signal supply or demand shifts • Apply opportunity cost analysis to one agribusiness investment decision; record two alternatives, full costs of each including opportunity costs and recommended choice with rationale • Prepare a one-page microeconomic analysis brief for one agribusiness enterprise; record	

				pricing signals, resource allocation choices and one decision supported by the analysis	scarcity constraints, key pricing signals, resource allocation choices and one decision supported by the analysis	
GENERAL OBJECTIVE 2.0: Know demand and supply analysis to agricultural markets						
3– 5	1.7 Describe the law of demand 1.8 Explain the factors that affect the change in quantity demanded and change in demand for agricultural products 1.9 Describe the law of supply 1.10 Explain the factors that affect the change in quantity supplied and change in supply for agricultural products 1.11 Explain how market equilibrium is determined and how it changes with change in demand or supply 1.12 Define price	• Describe law of demand and supply; explain the factors that affect the change in quantity demanded/supplied and change in demand/supply with Nigerian agricultural product examples • Explain market equilibrium determination and adjustment with agricultural market examples • Define and demonstrate types/price elasticity calculation and interpretation for one Nigerian commodity • Explain income elasticity and cross-price elasticity with Nigerian agricultural	Demand and supply curve diagrams, market equilibrium guide, price elasticity calculation worksheet, income and cross-price elasticity guide, projector.	• Draw demand and supply curves for one Nigerian agricultural commodity • Label axes, equilibrium price and quantity and identify two demand shifters and two supply shifters • Analyse the effect of one demand shock and one supply shock on the equilibrium price and quantity for one commodity. • Record the shock, direction of curve shift, new equilibrium, scarcity and surplus and effect on farmers' revenue • Calculate price	Guide students to: • Draw demand and supply curves for one Nigerian agricultural commodity; label axes, equilibrium price and quantity and identify two demand shifters and two supply shifters • Analyse the effect of one demand shock and one supply shock on the equilibrium price and quantity for one commodity; record the shock, direction of curve shift, new equilibrium, scarcity and surplus and effect on farmers' revenue • Calculate price elasticity of demand	Demand and supply curve drawing guide, market equilibrium analysis worksheet, price elasticity calculation worksheet, agricultural commodity price and quantity data, income elasticity calculation worksheet, projector, smartphones, field notebooks.

	elasticity of demand and supply 1.13 State types of elasticities of demand and supply 1.14 Explain how to calculate and interpret elasticity values for agricultural commodities 1.15 Describe how income elasticity and cross-price elasticity affect demand for agricultural products in Nigeria	product demand examples		elasticity of demand for one agricultural commodity using provided price and quantity data. • Record formula, calculation, value and interpretation for agribusiness pricing decisions • Calculate price elasticity of supply for one agricultural commodity • Record formula, calculation, value and explain what the elasticity implies for producer response to price changes • Assess income elasticity for two Nigerian agricultural food products. • Record product, income elasticity value, classification as normal or inferior good and implication for agribusiness marketing strategy	for one agricultural commodity using provided price and quantity data; record formula, calculation, value and interpretation for agribusiness pricing decisions • Calculate price elasticity of supply for one agricultural commodity; record formula, calculation, value and explain what the elasticity implies for producer response to price changes • Assess income elasticity for two Nigerian agricultural food products; record product, income elasticity value, classification as normal or inferior good and implication for agribusiness marketing strategy	
GENERAL OBJECTIVE 3.0: Understand consumer theory and behaviour in agribusiness markets						
6– 7	3.1 Describe the	• Describe utility and	Utility and budget	• Draw indifference	• Draw indifference	Indifference

	concept of utility 3.2 Explain how consumers maximise utility subject to a budget constraint 3.3 Explain indifference curves and budget lines and how they determine the consumer equilibrium for agribusiness products 3.4 Describe the income effect and substitution effect of a price change for agricultural products 3.5 Explain consumer surplus and how it measures the benefit consumers receive from agricultural markets 3.6 Describe how changes in consumer preferences, income and prices affect demand for Nigerian	budget constraint with agribusiness consumer product examples • Explain indifference curves and budget lines; demonstrate consumer equilibrium for two agribusiness products • Explain income and substitution effects with Nigerian agricultural food price change examples • Explain consumer surplus; demonstrate calculation for one agricultural product market • Describe consumer preference, income and price changes effect on agribusiness product demand with Nigerian examples	constraint guide, indifference curve and budget line diagrams, income and substitution effect guide, consumer surplus calculation guide, projector.	curves and a budget line for one consumer choosing between two agricultural products. • Label axes, equilibrium bundle and explain the consumer's optimal choice • Analyse the income and substitution effects of a 20% price increase for one Nigerian food product. • Record total price effect, income effect, substitution effect and net change in quantity demand • Calculate consumer surplus for one agricultural market using provided demand curve data. • Record calculation, value obtained and interpret what it means for agribusiness pricing • Assess how a change in one income level and one preference	curves and a budget line for one consumer choosing between two agricultural products; label axes, equilibrium bundle and explain the consumer's optimal choice • Analyse the income and substitution effects of a 20% price increase for one Nigerian food product; record total price effect, income effect, substitution effect and net change in quantity demand • Calculate consumer surplus for one agricultural market using provided demand curve data; record calculation, value obtained and interpret what it means for agribusiness pricing • Assess how a change in one income level and	curve and budget line drawing guide, income and substitution effect analysis worksheet, consumer surplus calculation worksheet, demand curve data for one commodity, consumer behaviour analysis template, projector, smartphones, field notebooks.,

	agribusiness products			shift affect demand for one Nigerian agribusiness product • Record change, direction of demand effect and one agribusiness response • Prepare a consumer behaviour analysis for one Nigerian agribusiness product. • Rrecord utility drivers, budget constraints, price sensitivity and two marketing implications	one preference shift affect demand for one Nigerian agribusiness product; record change, direction of demand effect and one agribusiness response • Prepare a consumer behaviour analysis for one Nigerian agribusiness product; record utility drivers, budget constraints, price sensitivity and two marketing implications	
GENERAL OBJECTIVE 4.0: Know production theory and cost analysis in agribusiness						
8– 10	4.1 Describe the production function 4.2 Explain total, average and marginal product of variable inputs in agribusiness 4.3 Explain the law of diminishing returns and its significance for agribusiness input use decisions 4.4 Define cost concept	• Describe production function; demonstrate total, average and marginal product calculation for one agribusiness input • Explain law of diminishing returns with agribusiness input application example and production data • Explain cost concept	Production function guide, total average and marginal product calculation worksheet, diminishing returns illustration, agribusiness cost calculation worksheet, economies of scale guide, isoquant and	• Calculate total product, average product and marginal product for one agribusiness enterprise using provided input-output data. • Record input quantity, TP, AP and MP and identify the point of diminishing returns	Guide students to: • Calculate total product, average product and marginal product for one agribusiness enterprise using provided input-output data; record input quantity, TP, AP and MP and identify the point of diminishing returns	Input-output data for production function analysis, TP AP MP calculation worksheet, cost calculation worksheet at multiple output levels, LRAC calculation guide, least-cost input combination

	4.5 Explain the importance of cost concept 4.6 Describe short-run and long-run costs in agribusiness: fixed, variable, total, average and marginal costs 4.7 Explain economies and diseconomies of scale and their implications for agribusiness enterprise size decisions 4.8 Describe how to apply the least-cost input combination rule to maximise agribusiness production efficiency	and its importance • Describe short-run and long-run costs; demonstrate cost calculation for one agribusiness enterprise • Explain economies and diseconomies of scale with Nigerian agribusiness enterprise size examples • Discuss least-cost input combination using isoquant and isocost analysis for one agribusiness	isocost diagram, projector.	• Analyse production data for one agribusiness activity. • Record where diminishing returns set in, optimal input level for maximum TP and optimal input level for maximum AP • Calculate fixed costs, variable costs, total costs, average total cost and marginal cost for one agribusiness enterprise at five output levels. • Record all values and draw cost curves • Calculate the long-run average cost for one agribusiness enterprise at three scales of operation. • Record scale, output, total cost, LRAC and identify whether economies or diseconomies of scale apply • Determine the least-cost input combination for one	• Analyse production data for one agribusiness activity; record where diminishing returns set in, optimal input level for maximum TP and optimal input level for maximum AP • Calculate fixed costs, variable costs, total costs, average total cost and marginal cost for one agribusiness enterprise at five output levels; record all values and draw cost curves • Calculate the long-run average cost for one agribusiness enterprise at three scales of operation; record scale, output, total cost, LRAC and identify whether economies or diseconomies of scale apply • Determine the least-cost input	worksheet, projector, smartphones, field notebooks.

				agribusiness activity using given input prices and a production function. • Record input prices, marginal products, cost-minimising rule applied and recommended input combination	combination for one agribusiness activity using given input prices and a production function; record input prices, marginal products, cost-minimising rule applied and recommended input combination	
GENERAL OBJECTIVE 5.0: Understand theory of the firm and their implications for agribusiness						
11– 12	5.1 Describe the characteristics of perfect competition 5.2 Explain how price and output are determined in competitive agricultural markets 5.3 Explain how monopoly power arises in agribusiness input and output markets and its effect on price and quantity 5.4 Describe oligopoly market structure 5.5 Explain how strategic interdependence affects agribusiness	• Describe perfect competition; demonstrate price and output determination for a competitive agricultural market • Explain monopoly and market power in agribusiness with Nigerian input and output market examples • Describe oligopoly and strategic interdependence with Nigerian agribusiness input supply market examples • Explain monopolistic competition and product	Market structure comparison guide, perfect competition price and output diagram, monopoly diagram, oligopoly strategic interdependence guide, monopolistic competition product differentiation guide, government intervention diagrams, projector.	• Classify five Nigerian agricultural markets by market structure. • Record market, characteristics observed, structure classification and one implication for agribusiness pricing • Analyse the effect of monopoly power in one Nigerian agribusiness input market. • Record monopolist identified, price charged, quantity supplied, deadweight loss estimated and one recommended	Guide students to: • Classify five Nigerian agricultural markets by market structure; record market, characteristics observed, structure classification and one implication for agribusiness pricing • Analyse the effect of monopoly power in one Nigerian agribusiness input market; record monopolist identified, price charged, quantity supplied, deadweight loss	Nigerian agricultural market structure assessment guide, monopoly analysis worksheet, oligopoly market analysis guide, product differentiation assessment template, government intervention analysis worksheet, projector, smartphones,

	pricing in Nigerian input supply markets 5.6 Explain monopolistic competition and how product differentiation strategies apply to agribusiness enterprises 5.7 Describe government interventions in agricultural markets: price floors, price ceilings, taxes and subsidies and their effects on market equilibrium	differentiation with Nigerian agribusiness enterprise examples • Describe government agricultural market interventions with Nigerian price floor, subsidy and tax examples		policy response • Analyse a Nigerian agribusiness oligopoly market. • Record firms, market shares, evidence of strategic pricing interdependence and one competitive strategy each firm might use • Assess the product differentiation strategy of one Nigerian agribusiness enterprise in a monopolistically competitive market. • Record differentiation method, price premium achieved and two improvement recommendations • Analyse the effect of one Nigerian government agricultural market intervention. • Record intervention type, initial equilibrium, new	estimated and one recommended policy response • Analyse a Nigerian agribusiness oligopoly market; record firms, market shares, evidence of strategic pricing interdependence and one competitive strategy each firm might use • Assess the product differentiation strategy of one Nigerian agribusiness enterprise in a monopolistically competitive market; record differentiation method, price premium achieved and two improvement recommendations • Analyse the effect of one Nigerian government agricultural market intervention; record intervention type,	

				equilibrium, effect on farmers, consumers and government cost or revenue	initial equilibrium, new equilibrium, effect on farmers, consumers and government cost or revenue	
GENERAL OBJECTIVE 6.0: Know microeconomic tools for agribusiness pricing and decision-making						
13– 15	6.1 Describe profit and profit maximisation using the marginal revenue equals marginal cost rule in agribusiness enterprises 6.2 Explain price discrimination in agribusiness: types, conditions and examples from Nigerian commodity and food processing markets 6.3 Describe how to apply break-even analysis for agribusiness pricing and output decisions 6.4 Explain market failure in agribusiness: externalities, public	• Discuss profit and profit maximisation using MR equals MC rule for one agribusiness enterprise • Explain price discrimination types with Nigerian agribusiness commodity and food market examples • Discuss break-even analysis for one agribusiness enterprise pricing decision • Explain market failure types with Nigerian agribusiness externality, public good and information examples • Describe benefit-cost analysis for one agribusiness investment decision	Profit maximisation MR equals MC diagram, price discrimination guide, break-even analysis worksheet, market failure types guide, benefit-cost analysis worksheet, projector.	• Apply the MR equals MC profit maximisation rule to one agribusiness enterprise. • Record total revenue schedule, total cost schedule, MR and MC at each output level, profit-maximising quantity and maximum profit • Identify and analyse one example of price discrimination in a Nigerian agribusiness market. • Record market, buyer segments, prices charged to each segment, price discrimination type and welfare implication • Conduct a break-even analysis for	Guide students to: • Apply the MR equals MC profit maximisation rule to one agribusiness enterprise; record total revenue schedule, total cost schedule, MR and MC at each output level, profit-maximising quantity and maximum profit • Identify and analyse one example of price discrimination in a Nigerian agribusiness market; record market, buyer segments, prices charged to each segment, price discrimination type and welfare implication • Conduct a break-	MR equals MC profit maximisation worksheet, price discrimination analysis guide, break-even analysis calculation worksheet, market failure identification guide, benefit-cost analysis worksheet, projector, Smartphones.

	goods and information asymmetry and how they affect agribusiness markets 6.5 Describe how benefit - cost analysis (BCA) is applied to agribusiness investment decisions			one agribusiness enterprise. • Record fixed costs, variable costs per unit, selling price, break-even quantity calculated, break-even revenue and one pricing decision supported by the analysis • Identify two market failures affecting one Nigerian agribusiness sector. • Record failure type, cause, effect on market efficiency and one recommended government or industry response for each • Conduct a benefit - cost analysis for one agribusiness investment; record all costs, all benefits, net present value, benefit-cost ratio and investment recommendation with rationale	even analysis for one agribusiness enterprise; record fixed costs, variable costs per unit, selling price, break-even quantity calculated, break-even revenue and one pricing decision supported by the analysis • Identify two market failures affecting one Nigerian agribusiness sector; record failure type, cause, effect on market efficiency and one recommended government or industry response for each • Conduct a benefit - cost analysis for one agribusiness investment; record all costs, all benefits, net present value, benefit-cost ratio and investment recommendation with rationale	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

ECONOMETRICS FOR AGRIBUSINESS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: ECONOMETRICS FOR AGRIBUSINESS	**COURSE CODE: ABM 318**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**

GOAL: This course is designed to equip students with knowledge and skills in econometric methods for analysing agribusiness data, estimating relationships between economic variables and using quantitative evidence in agribusiness planning and decision-making.

GENERAL OBJECTIVES: On completion of this course, the students should be able to:

1. Understand the nature and scope of econometrics in agribusiness;
2. Know simple linear regression analysis for agribusiness data;
3. Know multiple linear regression analysis for agribusiness problems;
4. Understand diagnostic testing and model evaluation in agribusiness regression;
5. Understand time series analysis and forecasting in agribusiness;
6. Know econometric methods to agribusiness policy and market analysis.

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: ECONOMETRICS FOR AGRIBUSINESS	**COURSE CODE: ABM 318**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in econometric methods for analysing agribusiness data, estimating relationships between economic variables and using quantitative evidence in agribusiness planning and decision-making.		
GENERAL OBJECTIVE 1.0: Understand the nature and scope of econometrics in agribusiness		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 2	1.1 Define econometrics 1.2 Explain how econometrics combines economic theory, mathematics and statistical methods for agribusiness analysis 1.3 Describe the econometric research process: problem specification, model building, data collection, estimation, testing and interpretation	• Explain econometrics; explain combination of theory, maths and statistics with agribusiness analysis examples • Describe econometric research process with an agribusiness price or yield analysis example for each step • Explain data types with Nigerian agribusiness cross-	Econometrics in agribusiness overview guide, econometric research process diagram, data types guide, Nigerian agribusiness data sources guide, data preparation guide, laptop computers, projector.	• Collect a cross-sectional dataset of thirty (30) agribusiness observations for one variable from one Nigerian data source • Record variable, source, all ten observations and one data quality issue noted • Collect a time series dataset of twelve-month weekly observations for one Nigerian agricultural	Guide students to: • Collect a cross-sectional dataset of thirty (30) agribusiness observations for one variable from one Nigerian data source; record variable, source, all ten observations and one data quality issue noted • Collect a time series dataset of twelve-month weekly observations for one	Nigerian agribusiness data sources list, cross-sectional dataset collection guide, time series data collection guide, laptop computers with Excel or Google Sheets, data preparation guide, projector, smartphones, field notebooks.

	1.4 Explain types of data used in agribusiness econometrics: cross-sectional, time series and panel data 1.5 Describe sources of agribusiness data in Nigeria: CBN, FAO, NBS, commodity boards and enterprise records 1.6 Explain how to organise and prepare agribusiness data for econometric analysis using spreadsheet tools	sectional, time series and panel data examples • Describe Nigerian agribusiness data sources with NBS, CBN, FAO and commodity board examples • Describe agribusiness data organisation and preparation in Excel or Google Sheets		commodity price; record commodity, source, period and all price observations in order • Prepare an agribusiness dataset of thirty observations in Excel. • Record variable names, clean missing values, remove outliers and produce descriptive statistics for each variable • Classify three provided agribusiness datasets by data type. • Record dataset name, time dimension, cross-section dimension, data type and one suitable econometric method for each • Develop an econometric research question for one agribusiness topic. • Record economic theory basis, dependent variable, explanatory	Nigerian agricultural commodity price; record commodity, source, period and all price observations in order • Prepare an agribusiness dataset of thirty observations in Excel; record variable names, clean missing values, remove outliers and produce descriptive statistics for each variable • Classify three provided agribusiness datasets by data type; record dataset name, time dimension, cross-section dimension, data type and one suitable econometric method for each • Develop an econometric research question for one agribusiness topic; record economic theory basis, dependent variable, explanatory	

				variables, data source and apriori expectation sign of each relationship	variables, data source and apriori expectation sign of each relationship	
GENERAL OBJECTIVE 2.0: Know simple linear regression analysis for agribusiness data						
3– 5	2.1 Describe the simple linear regression model: dependent variable, independent variable, slope, intercept and error term 2.2 Explain the Ordinary Least Squares (OLS) method and how it minimises the sum of squared residuals to estimate regression parameters 2.3 Describe how to interpret OLS regression coefficients for agribusiness relationships: slope, intercept and elasticity 2.4 Explain goodness-of-fit measures: R-squared and adjusted R-squared and their	• Describe simple linear regression model with dependent, independent, slope and error term examples • Explain OLS method; demonstrate OLS estimation for a simple agribusiness regression • Discuss OLS coefficient interpretation including slope, intercept and elasticity for one agribusiness relationship • Explain and demonstrate R-squared and adjusted R-squared interpretation for one agribusiness regression • Describe t-test and p-	Simple linear regression model guide, OLS estimation guide, regression coefficient interpretation guide, R-squared interpretation guide, t-test and p-value guide, laptop computers, projector.	• Estimate a simple linear regression using statistical packages for one agribusiness relationship. • Record dependent variable, independent variable, OLS formula used, estimated slope, intercept and R-squared • Interpret all OLS coefficients from one estimated agribusiness regression. • Record slope value, interpretation in agribusiness terms, intercept value and interpretation • Test the statistical significance of the slope coefficient in one agribusiness regression; record t-	Guide students to: • Estimate a simple linear regression using statistical packages (e.g SPSS, STATA, E-Views, etc.) for one agribusiness relationship; record dependent variable, independent variable, OLS formula used, estimated slope, intercept and R-squared • Interpret all OLS coefficients from one estimated agribusiness regression; record slope value, interpretation in agribusiness terms, intercept value and interpretation • Test the statistical significance of the slope coefficient in	Agribusiness dataset for simple regression, Excel or Google Sheets regression guide, OLS coefficient interpretation template, t-test calculation guide, log-log regression guide, laptop computers, projector, smartphones, field notebooks.

	interpretation for agribusiness regression models 2.5 Describe how to test the statistical significance of regression coefficients using t-tests and p-values	value interpretation for one agribusiness regression coefficient		statistic calculated, degrees of freedom, critical t-value, p-value and conclusion on significance • Calculate and interpret R-squared for one agribusiness regression. • Record R-squared value, percentage of variation explained and one limitation of R-squared for this regression • Estimate the price elasticity of demand for one Nigerian agricultural commodity using a log-log regression. • Record model specification, estimated elasticity, t-test result and agribusiness pricing implication.	one agribusiness regression; record t-statistic calculated, degrees of freedom, critical t-value, p-value and conclusion on significance • Calculate and interpret R-squared for one agribusiness regression; record R-squared value, percentage of variation explained and one limitation of R-squared for this regression • Estimate the price elasticity of demand for one Nigerian agricultural commodity using a log-log regression; record model specification, estimated elasticity, t-test result and agribusiness pricing implication	
GENERAL OBJECTIVE 3.0: Know multiple linear regression analysis for agribusiness problems						
6– 8	3.1 Describe the multiple linear regression model	• Describe multiple regression model with agribusiness	Multiple linear regression model guide, model	• Apply a multiple regression model for one agribusiness	Guide students to: • Specify a multiple regression model	Agribusiness dataset for multiple

	3.2 Explain why multiple explanatory variables improve agribusiness analysis 3.3 Explain how to specify a multiple regression model for an agribusiness relationship: variable selection, functional form and data requirements 3.4 Describe how to estimate and interpret multiple regression coefficients for agribusiness: partial slopes, ceteris paribus interpretation and joint significance 3.5 Explain the F-test for overall model significance and how to interpret it for an agribusiness regression 3.6 Describe how to use multiple regression results to make agribusiness management and policy	multiple explanatory variable examples • Explain multiple regression model specification for one agribusiness relationship • Discuss multiple regression coefficient estimation and interpretation for one agribusiness model • Explain and demonstrate F-test for overall model significance for one agribusiness regression • Explain management and policy recommendation development from multiple regression results	specification guide, multiple regression coefficient interpretation guide, F-test guide, regression-based recommendation guide, laptop computers, projector.	relationship with at least three explanatory variables. • Record dependent variable, each explanatory variable, expected sign and theoretical justification • Estimate a multiple regression using statistical package for one agribusiness dataset with at least three independent variables; record all coefficients, standard errors, t-statistics and p-values • Interpret all coefficients from one estimated multiple agribusiness regression. • Record each variable, coefficient value, ceteris paribus interpretation in agribusiness terms and significance	for one agribusiness relationship with at least three explanatory variables; record dependent variable, each explanatory variable, expected sign and theoretical justification • Estimate a multiple regression using statistical package for one agribusiness dataset with at least three independent variables; record all coefficients, standard errors, t-statistics and p-values • Interpret all coefficients from one estimated multiple agribusiness regression; record each variable, coefficient value, ceteris paribus interpretation in agribusiness terms and significance decision	regression with at least four variables, multiple regression model specification template, Excel or Google Sheets multiple regression guide, F-test interpretation guide, management recommendation template, laptop computers, projector, smartphones, field notebooks.

	recommendations			decision • Conduct and interpret an F-test for one multiple regression; record F-statistic, critical F-value, degrees of freedom, p-value and conclusion on overall model significance • Prepare a management recommendation for one agribusiness enterprise based on multiple regression results; record key regression findings, their agribusiness implications and two evidence-based recommendations	• Conduct and interpret an F-test for one multiple regression; record F-statistic, critical F-value, degrees of freedom, p-value and conclusion on overall model significance • Prepare a management recommendation for one agribusiness enterprise based on multiple regression results; record key regression findings, their agribusiness implications and two evidence-based recommendations	
GENERAL OBJECTIVE 4.0: Understand diagnostic testing and model evaluation in agribusiness regression						
9– 10	4.1 Describe multicollinearity in multiple regression: causes, detection using variance inflation factor (VIF) and remedies for agribusiness models	• Describe multicollinearity; demonstrate VIF calculation and interpretation for one agribusiness regression • Explain heteroscedasticity;	Multicollinearity and VIF guide, heteroscedasticity residual plot guide, autocorrelation Durbin-Watson guide, omitted variable bias guide, model selection	• Calculate VIF for each explanatory variable in one multiple agribusiness regression. • Record each variable, VIF value, multicollinearity diagnosis and one	Guide students to: • Calculate VIF for each explanatory variable in one multiple agribusiness regression; record each variable, VIF value, multicollinearity	Multiple regression output for diagnostic testing, VIF calculation guide, residual plot guide, Durbin-Watson calculation guide,

	4.2 Explain heteroscedasticity: its meaning, causes in agribusiness data, detection using residual plots and White test and remedies 4.3 Describe autocorrelation: its meaning, causes in agribusiness time series data, detection using the Durbin-Watson statistic and remedies 4.4 Explain omitted variable bias and how incorrect model specification affects agribusiness regression results 4.5 Describe how to evaluate and compare competing agribusiness regression models using adjusted R-squared, AIC and BIC criteria	demonstrate residual plot interpretation for one agribusiness dataset • Explain autocorrelation; demonstrate Durbin-Watson statistic calculation and interpretation for one agribusiness time series • Explain omitted variable bias with an agribusiness regression specification example • Explain model comparison using adjusted R-squared, AIC and BIC for two competing agribusiness models	criteria guide, laptop computers, projector.	remedy applied if VIF exceeds ten • Plot residuals against fitted values for one agribusiness regression • Record residual plot pattern, heteroscedasticity diagnosis and one recommended correction • Calculate the Durbin-Watson statistic for one agribusiness time series regression. • Record DW value, critical bounds, autocorrelation diagnosis and one recommended correction • Identify one omitted variable in a provided agribusiness regression. • Record variable omitted, expected sign, likely bias direction in existing coefficients and improved model	diagnosis and one remedy applied if VIF exceeds ten • Plot and interpret residuals against fitted values for one agribusiness regression; record residual plot pattern, heteroscedasticity diagnosis and one recommended correction • Calculate the Durbin-Watson statistic for one agribusiness time series regression; record DW value, critical bounds, autocorrelation diagnosis and one recommended correction • Identify one omitted variable in a provided agribusiness regression; record variable omitted, expected sign, likely bias direction in existing coefficients and improved model	model comparison criteria guide, laptop computers, projector, smartphones, field notebooks.

				specification • Compare two competing agribusiness regression models. • Record adjusted R-squared, AIC and BIC for each and select the preferred model with justification	specification • Compare two competing agribusiness regression models; record adjusted R-squared, AIC and BIC for each and select the preferred model with justification	
GENERAL OBJECTIVE 5.0: Understand time series analysis and forecasting in agribusiness						
11– 12	5.1 Describe time series components in agribusiness data: trend, seasonality, cyclical variation and irregular fluctuations 5.2 Explain how to decompose an agricultural commodity price or output time series into its components 5.3 Describe moving average and exponential smoothing methods for agribusiness time series forecasting 5.4 Explain how to use a trend regression	• Describe time series components with Nigerian agricultural commodity price or output examples for each component • Explain time series decomposition for one Nigerian agricultural commodity • Discuss moving average and exponential smoothing forecasting for one agribusiness time series • Discuss trend regression forecasting for one	Time series components guide, time series decomposition guide, moving average and exponential smoothing guide, trend regression forecasting guide, forecast accuracy evaluation guide, laptop computers, projector.	• Plot a time series for one Nigerian agricultural commodity price over 24 months. • Identify and label trend, seasonal and irregular components observed in the plot • Decompose a twelve-month agricultural commodity price series using a simple moving average method. • Record each moving average calculation, smoothed series and seasonal index for each period • Forecast the next	Guide students to: • Plot a time series for one Nigerian agricultural commodity price over 24 months; identify and label trend, seasonal and irregular components observed in the plot • Decompose a twelve-month agricultural commodity price series using a simple moving average method; record each moving average calculation, smoothed series and seasonal index for each period	Nigerian agricultural commodity price time series data, time series decomposition worksheet, moving average calculation guide, exponential smoothing forecast guide, trend regression forecasting worksheet, forecast accuracy evaluation worksheet, laptop computers, projector, smartphones, field

	model to forecast agricultural production or commodity prices 5.5 Describe how to evaluate forecast accuracy using mean absolute error (MAE), mean squared error (MSE) and mean absolute percentage error (MAPE)	agricultural production or price series • Explain forecast accuracy evaluation using MAE, MSE and MAPE for one agribusiness forecast		three months of agricultural commodity prices using exponential smoothing with one chosen smoothing constant. • Record all calculations, forecast values and smoothing constant rationale • Estimate a trend regression for one agricultural production time series. • Record model specification, estimated trend coefficient, R-squared and production forecasts for the next two years • Evaluate the accuracy of one agribusiness forecast; record actual values, forecast values, error, absolute error, squared error and MAPE; interpret the MAPE value for	• Forecast the next three months of agricultural commodity prices using exponential smoothing with one chosen smoothing constant; record all calculations, forecast values and smoothing constant rationale • Estimate a trend regression for one agricultural production time series; record model specification, estimated trend coefficient, R-squared and production forecasts for the next two years • Evaluate the accuracy of one agribusiness forecast; record actual values, forecast values, error, absolute error, squared error and MAPE; interpret the MAPE value for forecast quality	notebooks.

				forecast quality		
GENERAL OBJECTIVE 6.0: Know econometric methods to agribusiness policy and market analysis						
13– 15	6.1 Describe how to estimate a demand function for a Nigerian agricultural commodity using multiple regression 6.2 Explain how to estimate an agricultural supply function and interpret coefficients for agribusiness policy 6.3 Explain how to use regression analysis to identify price transmission between farm gate and retail prices in Nigerian markets 6.4 Describe how to present econometric findings to agribusiness managers, policymakers and investors in accessible language	• Demonstrate demand function estimation for one Nigerian agricultural commodity using multiple regression • Discuss supply function estimation and coefficient interpretation for agribusiness policy • Discuss price transmission regression analysis between farm gate and retail prices for one commodity • Describe accessible presentation of econometric findings to non-technical agribusiness audiences	Demand function estimation guide, supply function estimation guide, policy evaluation method guide, price transmission regression guide, econometric findings presentation guide, laptop computers, projector.	• Estimate a demand function for one Nigerian agricultural commodity. • Record dependent variable, price, income and two other explanatory variables, OLS estimates, elasticities and one policy implication • Estimate a supply function for one Nigerian agricultural commodity. • Record dependent variable, commodity price, input price and one other explanatory variable, OLS estimates and one policy implication • Analyse price transmission between farm gate and retail for one Nigerian commodity using OLS regression; record	Guide students to: • Estimate a demand function for one Nigerian agricultural commodity; record dependent variable, price, income and two other explanatory variables, OLS estimates, elasticities and one policy implication • Estimate a supply function for one Nigerian agricultural commodity; record dependent variable, commodity price, input price and one other explanatory variable, OLS estimates and one policy implication • Analyse price transmission between farm gate and retail for one Nigerian commodity using OLS regression; record	Nigerian agricultural commodity demand and supply datasets, demand function estimation worksheet, supply function estimation worksheet, before-after policy evaluation guide, price transmission regression guide, laptop computers, projector, smartphones, field notebooks.

				model specification, estimated pass-through coefficient, significance test and marketing efficiency implication • Present the findings of one agribusiness regression analysis to the class in a five-minute non-technical briefing. • Record key finding, method used, agribusiness implication and one recommendation for management action	model specification, estimated pass-through coefficient, significance test and marketing efficiency implication • Present the findings of one agribusiness regression analysis to the class in a five-minute non-technical briefing; record key finding, method used, agribusiness implication and one recommendation for management action	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

AGRIBUSINESS DIGITAL SYSTEMS AND DATA ANALYTICS

<table>
<tr><td colspan="3">PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT</td></tr>
<tr><td colspan="2">COURSE TITLE: AGRIBUSINESS DIGITAL SYSTEMS AND DATA ANALYTICS</td><td>COURSE CODE: ABM 319</td></tr>
<tr><td rowspan="3">YEAR: I SEMESTER: I</td><td>CREDIT UNIT: 3</td><td>CONTACT HOURS: 3 HOURS/WEEK</td></tr>
<tr><td rowspan="2">PRE-REQUISITE:</td><td>THEORETICAL: 1 HOUR/WEEK</td></tr>
<tr><td>PRACTICAL: 2 HOURS/WEEK</td></tr>
<tr><td colspan="3">GOAL: This is course is designed to equip students with the knowledge and skills of data analysis in agribusiness.</td></tr>
<tr><td colspan="3">GENERAL OBJECTIVES: On completion of this course, the students should be able to:
1.0 Understand the digital systems landscape in agribusiness;
2.0 Understand data analytics and data flow from source to insight;
3.0 Assess data quality and produce clean, analysis-ready datasets;
4.0 Know statistical relationships between variables;
5.0 Understand analytics applied to commodity price data and demand forecasting;
6.0 Understand analytical findings through visualisation and dashboards.</td></tr>
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PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS DIGITAL SYSTEMS AND DATA ANALYTICS	COURSE CODE: ABM 319	CONTACT HOURS: 3 HOURS/WEEK
YEAR: I SEMESTER: I	CREDIT UNIT: 3	THEORETICAL: 1 HOUR/WEEK
	PRE-REQUISITE:	PRACTICAL: 2 HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This is course is designed to equip students with the knowledge and skills of data analysis in agribusiness.		
GENERAL OBJECTIVE 1.0: Understand the digital systems landscape in agribusiness		

	THEORETICAL CONTENT			PRACTICAL CONTENT		
WEEK	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES
1–2	1.1 Describe the types of digital systems used in modern agribusiness: Enterprise Resource Planning (ERP), farm management software, digital logistics tracking systems and agri-eCommerce platforms 1.2 Explain how digital record-keeping improves data quality, traceability and management	• Describe ERP, farm management software, logistics tracking and agri-eCommerce platforms with Nigerian agribusiness examples • Explain how digital record-keeping improves data quality, traceability and decision-making with agribusiness examples • Describe mobile	Agribusiness digital systems guide, digital record-keeping reference, mobile agribusiness tools guide, digital readiness framework, digital systems adoption plan template, data ethics guide, laptops, projector, smartphones.	• Map the digital systems used by one Nigerian agribusiness enterprise. • Record each system, its function, data captured, users and one identified gap • Assess the digital readiness of one agribusiness enterprise. • Record hardware available, connectivity, software in use, staff digital skill level and	Guide students to: • Map the digital systems used by one Nigerian agribusiness enterprise: record each system, its function, data captured, users and one identified gap • Assess the digital readiness of one agribusiness enterprise: record hardware available, connectivity, software in use,	Digital systems mapping template, digital readiness assessment template, farm app comparison guide, laptops with Excel, smartphones, data ethics case scenarios, digital systems adoption plan template.

	decision-making in agribusiness enterprises 1.3 Describe mobile-based agribusiness tools: farm recording apps, digital field logs, mobile inventory management and digital payment platforms 1.4 Explain the concept of digital readiness: hardware infrastructure, internet connectivity, software adoption and staff digital competency 1.5 Describe how to develop a digital system adoption plan for an agribusiness enterprise: needs identification, system selection, implementation steps, staff training and cost-benefit assessment 1.6 Explain data ethics	agribusiness tools with demonstrations of farm recording apps and digital payment platforms • Explain digital readiness framework; guide students to assess connectivity, hardware and software adoption • Explain digital system adoption plan development for one agribusiness enterprise • Explain data ethics principles with agribusiness and non-agribusiness case examples for each principle		overall readiness score • Compare two farm management apps: record features, cost, connectivity requirement, ease of use and recommended app with justification • Set up a digital record-keeping file in Excel for one agribusiness activity: define data fields, enter 10 observations and produce a summary count table • Develop a digital systems adoption plan for one agribusiness enterprise. • Record system to adopt, implementation steps, training required, estimated cost and expected benefit • Review two data ethics scenarios (one agribusiness, one from another sector). • Identify the ethical issue in each, name the principle violated and recommend a	staff digital skill level and overall readiness score • Compare two farm management apps: record features, cost, connectivity requirement, ease of use and recommended app with justification • Set up a digital record-keeping file in Excel for one agribusiness activity: define data fields, enter 10 observations and produce a summary count table • Develop a digital systems adoption plan for one agribusiness enterprise: record system to adopt, implementation steps, training required, estimated cost and expected benefit • Review two data ethics scenarios (one agribusiness,	

	principles applicable to agribusiness and beyond: data confidentiality, responsible data use, data ownership, informed consent and basic data security practices			corrective action	one from another sector): identify the ethical issue in each, name the principle violated and recommend a corrective action	
GENERAL OBJECTIVE 2.0: Understand data analytics and data flow from source to insight						
3–4	2.1 Explain what data analytics is 2.2 Explain why data analytics is a foundational professional skill across sectors 2.3 Describe the four types of analytics: descriptive (what happened), diagnostic (why it happened), predictive (what will happen) and prescriptive (what should be done), with examples from multiple sectors including agribusiness, retail,	• Explain what data analytics is with sector examples • Explain why data analytics is a foundational professional skill with real-world career examples • Describe the four analytics types with examples from agribusiness, retail, health and logistics for each • Explain the data analytics workflow using a diagram; walk through each stage with a completed case study	Data analytics overview guide, four types of analytics reference sheet, analytics workflow diagram, completed case study dataset and report, data types and structures reference, Nigerian and international data sources guide, problem statement definition template, sample datasets from	• Given five real-world business questions from different sectors, classify each as descriptive, diagnostic, predictive or prescriptive. • Record the question, classification and one-sentence justification for each • Map the analytics workflow for one provided scenario: record what happens at each stage, what output each stage produces and what question each stage answers • Reflect in writing:	Guide students to: • Given five real-world business questions from different sectors, classify each as descriptive, diagnostic, predictive or prescriptive: record the question, classification and one-sentence justification for each • Map the analytics workflow for one provided scenario: record what happens at each stage, what output	Analytics workflow diagram, four types of analytics reference sheet, multi-sector analytics scenario cards, sample datasets from multiple sectors, Nigerian open data sources guide, problem statement template, laptops, field notebooks.

	health and logistics 2.4 Explain the data analytics workflow 2.5 Describe data types and structures with examples from multiple sectors 2.6 Explain data sources available to data analysts 2.7 Describe how to define an analytics problem statement	• Describe data types and structures with examples from multiple sectors • Explain data sources available to analysts including Nigerian open data sources • Explain problem statement definition using provided template and sample scenarios	multiple sectors, laptops, projector.	state one sector where data analytics is critical, describe what type of data is analysed in that sector and what decisions analytics supports • Given one dataset (e.g. retail sales or patient visit records), profile its structure: record data type per variable, whether the data is cross-sectional or time series and one limitation of the dataset for analysis • Identify three publicly available datasets relevant to Nigeria from different sectors: record the source, variables available, analytics question that could be answered and type of analytics it would support • Write a problem statement for one analytics scenario: record the management decision to be supported, the precise question to be	each stage produces and what question each stage answers • Reflect in writing: state one sector where data analytics is critical, describe what type of data is analysed in that sector and what decisions analytics supports • Given one dataset (e.g. retail sales or patient visit records), profile its structure: record data type per variable, whether the data is cross-sectional or time series and one limitation of the dataset for analysis • Identify three publicly available datasets relevant to Nigeria from different sectors: record the source, variables available, analytics question that could be	

				answered, the data required and the analytical method that would fit	answered and type of analytics it would support • Write a problem statement for one analytics scenario: record the management decision to be supported, the precise question to be answered, the data required and the analytical method that would fit	
GENERAL OBJECTIVE 3.0: Assess data quality and produce clean, analysis-ready datasets						
5–7	3.1 Explain data quality: the dimensions of accuracy, completeness, consistency, timeliness and validity 3.2 Describe common data quality problems encountered by analysts with examples across sectors 3.3 Describe tidy data	• Explain data quality dimensions: accuracy, completeness, consistency, timeliness and validity with sector examples • Describe common data quality problems with examples from agribusiness, health and retail sectors • Explain tidy data principles; demonstrate	Data quality dimensions guide, data quality audit checklist, tidy data principles guide, dirty datasets from multiple sectors, data cleaning procedure guide, data cleaning log template, dataset validation checklist, laptops,	• Conduct a systematic data quality audit on one provided dataset: record every quality issue found, the dimension it violates and its potential impact on analysis • Assess whether a second provided dataset is in tidy format: record which tidy principles are violated, what the correct structure should be and sketch	Guide students to: • Conduct a systematic data quality audit on one provided dataset: record every quality issue found, the dimension it violates and its potential impact on analysis • Assess whether a second provided dataset is in tidy format: record which tidy	Dirty datasets from two sectors, data quality audit checklist, tidy data examples, data cleaning log template, dataset validation checklist, laptops with Excel, field notebooks, smartphones.

	principles and how to restructure messy datasets into tidy format 3.4 Describe data cleaning procedures 3.5 Explain how to document data cleaning decisions: recording every change made, the rule applied, the rationale and the assumptions	restructuring of one messy dataset into tidy format • Describe data cleaning procedures with demonstration in Excel • Explain how to document data cleaning decisions using a cleaning log template	projector.	the restructured layout • Reflect: state one quality issue found in the audit that, if left uncorrected, would lead to a wrong analytical conclusion and explain why • Clean one provided dataset in Excel. • Apply at least five distinct cleaning procedures. • Record each procedure in the cleaning log with the rule applied, rows affected and rationale • Document all cleaning decisions in a cleaning log: record each change, the before and after state, the decision rule and one assumption made • Validate the cleaned dataset: record row count, column count, missing value count after cleaning, a plausibility checks on two summary statistics and a statement confirming the dataset	principles are violated, what the correct structure should be and sketch the restructured layout • Reflect: state one quality issue found in the audit that, if left uncorrected, would lead to a wrong analytical conclusion and explain why • Clean one provided dataset in Excel: apply at least five distinct cleaning procedures; record each procedure in the cleaning log with the rule applied, rows affected and rationale • Document all cleaning decisions in a cleaning log: record each change, the before and after state, the decision rule and one assumption made • Validate the	

				is ready for analysis	cleaned dataset: record row count, column count, missing value count after cleaning, a plausibility checks on two summary statistics and a statement confirming the dataset is ready for analysis	
GENERAL OBJECTIVE 4.0: Know statistical relationships between variables						
8–10	4.1 Explain correlation 4.2 Explain what correlation measures 4.3 Describe how to compute a correlation matrix and interpret the results 4.4 Explain how to use frequency analysis and cross-tabulation to explore relationships between categorical variables 4.5 Describe the simple linear regression model	• Explain correlation concept with agribusiness and non-agribusiness examples • Explain what correlation measures including direction, strength and Pearson r • Describe correlation matrix computation and interpretation using Excel Data Analysis Toolpak • Explain frequency analysis and cross-tabulation with categorical dataset	Correlation conceptual guide, correlation matrix construction guide, frequency and cross-tabulation guide, multi-sector datasets, group comparison methods guide, time series pattern guide, analytical finding template, laptops with Excel and Data	• Calculate Pearson correlation coefficients for four variable pairs from two different sector datasets (two pairs per dataset): record each pair, r value, direction, strength classification and one interpretation • Build a full correlation matrix for one multi-variable dataset: record the matrix and identify the three strongest relationships • Build a frequency table and cross-tabulation for one	Guide students to: • Calculate Pearson correlation coefficients for four variable pairs from two different sector datasets (two pairs per dataset): record each pair, r value, direction, strength classification and one interpretation • Build a full correlation matrix for one multi-variable dataset: record the matrix and identify the	Two-sector multi-variable datasets, correlation matrix template, frequency analysis worksheet, multi-sector datasets including time series, group comparison worksheet, time series analysis worksheet, analytical

	4.6 Explain how to compare distributions across groups using summary statistics and visualisation 4.7 Describe how to identify and interpret patterns in time series data	examples • Describe the simple linear regression model; explain slope, intercept and R-squared interpretation • Explain group distribution comparison using summary statistics and grouped bar charts • Describe time series patterns: trend, seasonality and cycles; demonstrate moving average in Excel	Analysis Toolpak, projector.	categorical dataset: record frequencies, relative frequencies and cumulative frequencies • Compare one numeric variable across three groups in a provided dataset: produce a grouped summary table (mean, SD, count per group), a grouped bar chart and one conclusion about the group differences • Analyse one time series dataset from any sector. • Plot the series, add a 3-month moving average overlay, identify the trend direction and one seasonal or cyclical pattern and state one decision the pattern would inform • Document one complete analytical finding: record the question, method used, result and one management implication	three strongest relationships • Build a frequency table and cross-tabulation for one categorical dataset: record frequencies, relative frequencies and cumulative frequencies • Compare one numeric variable across three groups in a provided dataset: produce a grouped summary table (mean, SD, count per group), a grouped bar chart and one conclusion about the group differences • Analyse one time series dataset from any sector: plot the series, add a 3-month moving average overlay, identify the trend direction and one seasonal or cyclical pattern and state one decision the pattern would	finding template, laptops with Excel and Data Analysis Toolpak, field notebooks, smartphones.

					inform • Document one complete analytical finding: record the question, method used, result and one management implication.	
GENERAL OBJECTIVE 5.0: Understand analytics applied to commodity price data and demand forecasting						
11–12	5.1 Describe commodity price data analytics as an application of Exploratory Data Analysis (EDA), correlation and regression skills already developed 5.2 Explain how to structure commodity price datasets for analysis 5.3 Describe how to use regression to model and forecast commodity prices 5.4 Explain demand forecasting as a quantitative prediction problem 5.5 Describe three	• Describe commodity price analytics as applied EDA; link to skills from objectives 2, 3 and 4 • Explain how to structure commodity price datasets in tidy format for analysis • Discuss regression modelling and forecasting on a Nigerian commodity price dataset • Explain demand forecasting as a quantitative prediction problem with agribusiness examples • Describe SMA, WMA and regression	Commodity price analytics workflow guide, price dataset tidy structure template, price regression example guide, Nigerian commodity price datasets, demand forecasting methods guide, SMA and WMA and regression comparison worksheet, forecast accuracy evaluation guide, agribusiness and non-agribusiness	•Structure a provided commodity price dataset in tidy format: record variable names, cleaning actions taken and confirm if the dataset is ready for analysis •Conduct EDA on the price dataset: compute descriptive statistics, build a price distribution histogram, identify any price outliers using IQR and build an indexed time series chart identifying the trend and one seasonal pattern •Run a regression model on the price dataset using one supply or demand driver as the predictor: record the	Guide students to: •Structure a provided commodity price dataset in tidy format: record variable names, cleaning actions taken and confirm if the dataset is ready for analysis •Conduct EDA on the price dataset: compute descriptive statistics, build a price distribution histogram, identify any price outliers using IQR and build an indexed time series chart identifying the trend and one seasonal	Nigerian commodity price dataset, price dataset structure template, EDA worksheet, regression worksheet, demand datasets (one general, one agribusiness), SMA and WMA calculation worksheet, forecast accuracy evaluation worksheet, laptops with

	forecasting methods and their relative strengths: Simple Moving Average (SMA), Weighted Moving Average (WMA) and regression 5.6 Explain forecast accuracy evaluation using Mean Absolute Error (MAE) and Mean Absolute Percentage Error (MAPE)	forecasting methods; compare strengths with sector examples • Explain MAE and MAPE forecast accuracy evaluation; demonstrate calculation and interpretation	demand datasets, laptops, projector.	regression equation, coefficient interpreted as price sensitivity, R-squared and one price forecast under a stated supply scenario • Produce three-month demand forecasts for one product using SMA, WMA and regression: record method, forecast values per period, weight rationale (for WMA) and regression equation (for regression method) • Evaluate forecast accuracy for all three methods using two months of actual vs forecast data: calculate MAE and MAPE for each method. • Record results in a comparison table and write a justified recommendation on which method to use going forward • Apply the chosen forecasting method to an agribusiness demand dataset. • Record the demand	pattern • Run a regression model on the price dataset using one supply or demand driver as the predictor: record the regression equation, coefficient interpreted as price sensitivity, R-squared and one price forecast under a stated supply scenario • Produce three-month demand forecasts for one product using SMA, WMA and regression: record method, forecast values per period, weight rationale (for WMA) and regression equation (for regression method) • Evaluate forecast accuracy for all three methods using two months of actual vs forecast data: calculate MAE and MAPE for each	Excel and Data Analysis Toolpak, field notebooks.

				pattern characteristics that drove the method choice, the forecast for the next three periods and one inventory or procurement decision the forecast supports	method; record results in a comparison table and write a justified recommendation on which method to use going forward • Apply the chosen forecasting method to an agribusiness demand dataset: record the demand pattern characteristics that drove the method choice, the forecast for the next three periods and one inventory or procurement decision the forecast supports	
GENERAL OBJECTIVE 6.0: Understand analytical findings through visualisation and dashboards						
13–15	6.1 Explain data visualisation principles 6.2 Describe the correct chart type for each analytical purpose 6.3 Explain what makes an analytical visualisation misleading and how to avoid common	• Explain data visualisation principles with good and bad visualisation examples • Describe correct chart types for each analytical purpose using the chart type decision framework • Show misleading	Data visualisation principles guide, chart type decision framework, misleading visualisation examples gallery, multi-sector datasets,	• Given six analytical questions from different sectors, select the correct chart type for each: record the question, chart type chosen and one-sentence justification • Build four chart types in any software from one provided dataset;	Guide students to: • Given six analytical questions from different sectors, select the correct chart type for each: record the question, chart type chosen and one-sentence justification • Build four chart	Multi-sector datasets for charting, chart type decision framework, misleading chart examples, laptops with Excel, multi-sector dataset

	errors 6.4 Describe the Power BI Desktop visualisation environment 6.5 Explain how to load and transform data in Power BI using Power Query 6.6 Describe how to build a multi-visual analytical dashboard in Power BI	visualisation examples; explain each error and how to correct it • Describe Power BI Desktop interface; demonstrate navigation, data loading and report canvas • Explain Power Query data transformation and DAX measures for analytics • Describe multi-visual dashboard construction with KPI card, bar chart, line chart, scatter plot, matrix table and slicers	Power BI Desktop interface guide, Power Query transformation guide, DAX measures reference, laptops with Power BI Desktop, projector.	for each chart, record the analytical question it answers and the insight it communicates • Build an analytical dashboard with five visuals (KPI card, bar chart, line chart, scatter plot, matrix table), two slicers and a clear page title and visual titles that state the analytical question each visual answers • Present a dashboard to the class; explain the analytical question the dashboard answers, walk through three key findings from the visuals and state two decisions a manager could make using the dashboard	types in any software from one provided dataset; for each chart, record the analytical question it answers and the insight it communicates • Build an analytical dashboard with five visuals (KPI card, bar chart, line chart, scatter plot, matrix table), two slicers and a clear page title and visual titles that state the analytical question each visual answers • Present a dashboard to the class; explain the analytical question the dashboard answers, walk through three key findings from the visuals and state two decisions a manager could make using the dashboard	for Power BI, Power BI Desktop guide, DAX measures reference, laptops with Power BI Desktop, projector, field notebooks.

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

YEAR I - SEMESTER II

AGRIBUSINESS ACCOUNTING AND COSTING

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS ACCOUNTING AND COSTING	**COURSE CODE: ABM 321**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and practical skills in agribusiness accounting, cost analysis and financial record keeping.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the principles and systems of agribusiness accounting; 2.0 Understand double-entry bookkeeping in agribusiness; 3.0 Know farm and agribusiness costing methods; 4.0 Prepare and interpret agribusiness financial statements; 5.0 Understand management accounting for agribusiness decisions; 6.0 Understand accounting software in agribusiness.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS ACCOUNTING AND COSTING	**COURSE CODE:** ABM 321	**CONTACT HOURS:** 3 HOURS/WEEK
YEAR: I SEMESTER: II	**CREDIT UNIT:** 3	**THEORETICAL:** 1 HOUR/WEEK
	PRE-REQUISITE:	**PRACTICAL:** 2 HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and practical skills in agribusiness accounting, cost analysis and financial record keeping.		
GENERAL OBJECTIVE 1.0: Understand the principles and systems of agribusiness accounting		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1-2	1.1 Define accounting 1.2 Explain the importance of accounting in agribusiness management 1.3 Describe the accounting principles applicable to agribusiness: accrual, consistency and going concern 1.4 Describe the types of accounting systems used in agribusiness: cash, accrual and farm accounting 1.5 Explain the accounting equation and its	•Explain accounting; explain importance with agribusiness management examples •Describe accounting principles with agribusiness application examples •Describe accounting system types with agribusiness	Accounting principles guide, accounting equation examples, chart of accounts template, agribusiness accounting system guide, projector.	• Prepare a chart of accounts for one agribusiness enterprise • Record account name, code and type for each account • Classify twenty agribusiness transactions as assets, liabilities, income or expenses. • Record each classification and justification • Apply the accounting equation to five	Guide students to: • Prepare a chart of accounts for one agribusiness enterprise; record account name, code and type for each account • Classify twenty agribusiness transactions as assets, liabilities, income or expenses; record each classification and justification • Apply the	Chart of accounts template, transaction classification worksheet, accounting equation worksheet, accounting system comparison guide, smartphones, field notebooks.

	application in agribusiness 1.6 Describe the chart of accounts for a typical agribusiness enterprise	examples for each •Explain accounting equation with an agribusiness worked example •Describe chart of accounts for a poultry or crop enterprise		agribusiness transactions. • Record how each transaction changes assets, liabilities and equity • Identify the most appropriate accounting system for three agribusiness enterprise types; record system, justification and one limitation • Prepare a one-page accounting system recommendation for a small agribusiness enterprise; include system type, setup steps and expected benefit	accounting equation to five agribusiness transactions; record how each transaction changes assets, liabilities and equity • Identify the most appropriate accounting system for three agribusiness enterprise types; record system, justification and one limitation • Prepare a one-page accounting system recommendation for a small agribusiness enterprise; include system type, setup steps and expected benefit	
GENERAL OBJECTIVE 2.0: Understand double-entry bookkeeping in agribusiness						
3–5	2.1 Explain double-entry bookkeeping: the debit and credit rule 2.2 Describe how to record agribusiness transactions	• Explain double-entry bookkeeping with debit and credit rule examples	Double-entry bookkeeping guide, journal template, ledger template, trial	• Record ten agribusiness transactions in a journal using double-entry bookkeeping. • Record date, accounts,	Guide students to: • Record ten agribusiness transactions in a journal using	Journal template, ledger template, trial balance template, agribusiness

	in journals and ledgers 2.3 Explain how to prepare a trial balance for an agribusiness enterprise 2.4 Describe how to identify and correct errors in agribusiness bookkeeping records 2.5 Explain how to close accounts at the end of an agribusiness accounting period	• Discuss journal and ledger recording for five agribusiness transactions • Discuss trial balance preparation from agribusiness ledger accounts • Explain and demonstrate error identification and correction • Describe closing entries for one agribusiness accounting period	balance template, error correction guide, projector.	debit and credit for each • Post the journal entries to ledger accounts; record each ledger account with running balance • Prepare a trial balance from the ledger accounts. • Record all debit and credit balances and verify if they agree. • Identify and correct two bookkeeping errors in a provided agribusiness trial balance. • Record error type and correction entry • Prepare closing journal entries for one agribusiness accounting period. • Record each closing entry and post to ledger	double-entry bookkeeping; record date, accounts, debit and credit for each • Post the journal entries to ledger accounts; record each ledger account with running balance • Prepare a trial balance from the ledger accounts; record all debit and credit balances and verify if they agree. • Identify and correct two bookkeeping errors in a provided agribusiness trial balance; record error type and correction entry • Prepare closing journal entries for one agribusiness accounting period; record each closing entry and post to ledger	transaction list, trial balance with errors, field notebooks.
GENERAL OBJECTIVE 3.0: Understand farm and agribusiness costing methods						
6– 7	3.1 Describe cost concepts: fixed, variable, direct,	• Describe cost concepts with	Cost concepts guide, cost of	• Classify twenty agribusiness cost items	Guide students to: • Classify twenty	Cost classification

	indirect and opportunity costs in agribusiness 3.2 Explain how to calculate cost of production per unit for an agribusiness enterprise 3.3 Describe job order costing and process costing and their application in agribusiness 3.4 Explain activity-based costing and its use in agribusiness cost management 3.5 Describe how to use cost analysis to improve agribusiness profitability	agribusiness examples for each • Explain cost of production per unit calculation for one crop or livestock enterprise • Describe job order and process costing with agribusiness application examples • Explain activity-based costing with an agro-processing enterprise example • Discuss cost analysis for profitability improvement in one agribusiness	production calculation worksheet, job order costing template, process costing template, activity-based costing guide, projector.	as fixed or variable and direct or indirect. • Record each classification and justification • Calculate cost of production per unit for one crop or livestock enterprise. • Record all cost items, total cost and cost per unit • Prepare a job order cost sheet for one agribusiness production job; record all direct materials, labour and overhead costs • Conduct a cost analysis for one agribusiness enterprise. • Identify the three highest cost items and recommend one cost reduction action • Calculate the break-even output for one agribusiness enterprise. • Record fixed costs, variable cost per unit, selling price and break-even point	agribusiness cost items as fixed or variable and direct or indirect; record each classification and justification • Calculate cost of production per unit for one crop or livestock enterprise; record all cost items, total cost and cost per unit • Prepare a job order cost sheet for one agribusiness production job; record all direct materials, labour and overhead costs • Conduct a cost analysis for one agribusiness enterprise; identify the three highest cost items and recommend one cost reduction action • Calculate the break-even output for one agribusiness enterprise; record fixed costs, variable cost per unit, selling	worksheet, cost of production calculation worksheet, job order cost sheet template, cost analysis template, break-even calculation guide, smartphones, field notebooks.

					price and break-even point	
GENERAL OBJECTIVE 4.0: Prepare and interpret agribusiness financial statements						
8–10	4.1 Describe the purpose and structure of the income statement for an agribusiness enterprise 4.2 Explain how to prepare a balance sheet for an agribusiness enterprise 4.3 Describe the cash flow statement and its importance for agribusiness liquidity management 4.4 Explain how to calculate and interpret key financial ratios for agribusiness enterprises 4.5 Describe how financial statement analysis guides agribusiness investment and financing decisions	• Describe income statement structure with an agribusiness worked example • Disccuss balance sheet preparation for one agribusiness enterprise • Describe cash flow statement with example of agribusiness cash flow • Explain ratio calculation and interpretation for one agribusiness enterprise • Explain how financial analysis guides agribusiness investment and financing decisions	Income statement template, balance sheet template, cash flow statement template, financial ratio guide, projector.	• Prepare an income statement for one agribusiness enterprise for one year. • Record all income and expenses and calculate net profit • Prepare a balance sheet for the enterprise. • Record all assets, liabilities and owner's equity • Prepare a cash flow statement for one quarter. • Record operating, investing and financing cash flows • Calculate four financial ratios for the enterprise. • Record each ratio, formula, calculated value and interpretation • Analyse the financial statements of a provided agribusiness. • Identify two financial strengths and two weaknesses with	Guide students to: • Prepare an income statement for one agribusiness enterprise for one year; record all income and expenses and calculate net profit • Prepare a balance sheet for the enterprise; record all assets, liabilities and owner's equity • Prepare a cash flow statement for one quarter; record operating, investing and financing cash flows • Calculate four financial ratios for the enterprise; record each ratio, formula, calculated value and interpretation • Analyse the financial statements of a provided	Income statement template, balance sheet template, cash flow statement template, financial ratio calculation guide, agribusiness financial statements for analysis, smartphones, field notebooks.

				recommendations	agribusiness; identify two financial strengths and two weaknesses with recommendations	
GENERAL OBJECTIVE 5.0: Understand management accounting for agribusiness decisions						
11–12	5.1 Distinguish management accounting from financial accounting in agribusiness 5.2 Explain budgetary planning and control as a management accounting tool in agribusiness 5.3 Describe variance analysis: sales, cost and profit variances in agribusiness 5.4 Explain marginal costing and contribution margin analysis for agribusiness pricing 5.5 Describe how management accounting information supports agribusiness strategic decisions	• Distinguish management and financial accounting with agribusiness examples • Discuss budgetary planning and control for one agribusiness enterprise • Explain variance analysis for a provided agribusiness budget versus actual • Explain marginal costing and contribution margin calculation for one agribusiness product • Explain strategic decision support	Management accounting guide, budget and control template, variance analysis worksheet, marginal costing guide, contribution margin worksheet, projector.	• Prepare a master budget for one agribusiness enterprise. • Record sales, production, direct materials, labour and overhead budgets • Calculate budget variances from a provided agribusiness actual versus budget report. • Record each variance as favourable or adverse • Calculate contribution margin and contribution margin ratio for three agribusiness products. • Record selling price, variable cost and contribution • Use contribution margin analysis to recommend which	Guide students to: • Prepare a master budget for one agribusiness enterprise; record sales, production, direct materials, labour and overhead budgets • Calculate budget variances from a provided agribusiness actual versus budget report; record each variance as favourable or adverse • Calculate contribution margin and contribution margin ratio for three agribusiness products; record selling price,	Master budget template, actual versus budget data, variance analysis worksheet, contribution margin calculation guide, management accounting report template, smartphones, field notebooks.

		using management accounting with examples		product to prioritise; record reasoning and expected profit impact • Prepare a management accounting report for one agribusiness enterprise. • Record key budget variances and two management recommendations	variable cost and contribution • Use contribution margin analysis to recommend which product to prioritise; record reasoning and expected profit impact • Prepare a management accounting report for one agribusiness enterprise; record key budget variances and two management recommendations	
GENERAL OBJECTIVE 6.0: Understand accounting software in agribusiness						
13–15	6.1 Describe accounting software applicable to agribusiness: QuickBooks, Sage and free alternatives 6.2 Explain how to set up a company profile in a accounting system for an agribusiness 6.3 Describe how to record agribusiness transactions in a accounting system	• Describe accounting software with agribusiness application examples • Describe company profile setup in one accounting software • Describe transaction	Accounting software, accounting software setup guide, transaction recording guide, report generation guide, projector.	• Set up a company profile for one agribusiness enterprise in accounting software. • Record setup steps and all company details entered • Record ten agribusiness transactions in the accounting software. • Record transaction	Guide students to: • Set up a company profile for one agribusiness enterprise in accounting software; record setup steps and all company details entered • Record ten agribusiness	Computers with accounting software, accounting software setup guide, transaction data for entry, bank statement for reconciliation, smartphones, field notebooks.

	6.4 Explain how to generate financial reports from accounting system 6.5 Describe how digital accounting tools reduce errors and improve agribusiness financial management	recording in accounting software • Describe financial report generation from the accounting system • Explain digital accounting benefits with agribusiness efficiency examples		type, accounts and amounts for each • Generate an income statement and balance sheet from the accounting software. • Record all steps and verify figures match manual preparation • Reconcile the bank statement for one month in the accounting software. • Record all reconciling items and final reconciled balance • Prepare a financial report summary from the accounting software for one quarter. • Record key financial metrics and two management insights	transactions in the accounting software; record transaction type, accounts and amounts for each • Generate an income statement and balance sheet from the accounting software; record all steps and verify figures match manual preparation • Reconcile the bank statement for one month in the accounting software; record all reconciling items and final reconciled balance • Prepare a financial report summary from the accounting software for one quarter; record key financial metrics and two management insights	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

FARM BUSINESS MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: FARM BUSINESS MANAGEMENT	**COURSE CODE: ABM 322**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills to develop comprehensive farm business plans and conduct feasibility studies for agribusiness enterprises.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand farm business planning concepts and approaches ;; 2.0 Understand situation analysis and enterprise selection; 3.0 Understand market analysis and marketing planning; 4.0 Know technical planning for farm enterprises; 5.0 Know financial planning and investment appraisal ; 6.0 Understand how to prepare and present a bankable farm business plan.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: FARM BUSINESS MANAGEMENT	COURSE CODE: ABM 322	CONTACT HOURS: 3 HOURS/WEEK
YEAR: I SEMESTER: II	CREDIT UNIT: 3	THEORETICAL: 1 HOUR/WEEK
	PRE-REQUISITE:	PRACTICAL: 2 HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills to develop comprehensive farm business plans and conduct feasibility studies for agribusiness enterprises.		
GENERAL OBJECTIVE 1.0: Understand farm business planning concepts and approaches		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES
1	1.1 Define a farm business plan 1.2 Explain farm business plan importance for agribusiness enterprise success 1.3 Describe the components of a comprehensive farm business plan 1.4 Explain the difference between a business plan, feasibility study and investment proposal 1.5 Describe the	•Explain farm business plan; explain importance with Nigerian agribusiness examples •Describe business plan components with a model business plan structure •Distinguish business plan, feasibility study and investment proposal •Describe target audiences and their different information	Farm business plan component guide, model business plan structure, feasibility study comparison guide, information gathering guide, projector.	• Identify the components of three Nigerian farm business plans. • Record components present and any missing in each • Identify the differences between a business plan, feasibility study and investment proposal using three provided documents; record key differences • Prepare an information gathering checklist for one farm enterprise	Guide students to: • Identify the components of three Nigerian farm business plans; record components present and any missing in each • Outline the differences between a business plan, feasibility study and investment proposal using three provided documents; record key differences • Prepare an	Three Nigerian farm business plans, feasibility study and investment proposal samples, information gathering checklist template, smartphones, field notebooks.

	audiences for a farm business plan: banks, investors and grant bodies 1.6 Explain how to gather information needed for a farm business plan	requirements •Explain information gathering methods for farm business planning		business plan. • Record all information needed and how to collect each • Research one Nigerian agribusiness that received bank or investor funding. • Record the business plan elements that supported their funding • Present the information gathering checklist to the class; explain the enterprise and why each piece of information is needed	information gathering checklist for one farm enterprise business plan; record all information needed and how to collect each • Research one Nigerian agribusiness that received bank or investor funding; record the business plan elements that supported their funding • Present the information gathering checklist to the class; explain the enterprise and why each piece of information is needed	
GENERAL OBJECTIVE 2.0: Understand situation analysis and enterprise selection						
2– 3	2.1 Describe how to conduct a SWOT analysis for a farm enterprise 2.2 Explain how to conduct a Political, Economic,	•Demonstrate SWOT analysis for one Nigerian farm enterprise •Demonstrate PESTLE analysis for one agribusiness	SWOT analysis template, PESTLE analysis template, enterprise budget comparison template,	•Conduct a SWOT analysis for one farm enterprise business plan. •Record two items per quadrant with brief explanation •Conduct a PESTLE	Guides students to: •Conduct a SWOT analysis for one farm enterprise business plan; record two items per quadrant with brief explanation	SWOT analysis template, PESTLE analysis template, enterprise budget comparison template,

	Sociological, Technological, Legal and Environmental (PESTLE) analysis for an agribusiness environment 2.3 Describe how to select a profitable and viable farm enterprise using enterprise budgeting 2.4 Explain resource assessment: land, capital, labour and management for farm planning 2.5 Describe how to set SMART business objectives for a farm enterprise	environment • Demonstrate enterprise budget comparison for two farm enterprises • Demonstrate resource assessment for one farm enterprise • Demonstrate SMART objective setting for a farm business plan	resource assessment guide, SMART objective guide, projector.	analysis for one agribusiness environment; record one key factor per category with agribusiness implication • Prepare enterprise budgets for two farm enterprises and select the more profitable; record all costs, income and gross margin for each • Conduct a resource assessment for one farm enterprise. • Record available land, capital, labour and management capacity • Set five SMART business objectives for the farm business plan; record each objective with target, indicator and timeline	• Conduct a PESTLE analysis for one agribusiness environment; record one key factor per category with agribusiness implication • Prepare enterprise budgets for two farm enterprises and select the more profitable; record all costs, income and gross margin for each • Conduct a resource assessment for one farm enterprise; record available land, capital, labour and management capacity • Set five SMART business objectives for the farm business plan; record each objective with target, indicator and timeline	resource assessment form, SMART objective template, smartphones, field notebooks.
GENERAL OBJECTIVE 3.0: Understand market analysis and marketing planning						
4– 5	3.1 Describe how to conduct a market analysis for a farm enterprise product 3.2 Explain how to	• Demonstrate market analysis for one Nigerian farm enterprise product • Demonstrate market	Market analysis guide, market size estimation template, competitor	• Conduct a market analysis for one farm enterprise product; record demand, price, competitors and market	Guide students to: • Conduct a market analysis for one farm enterprise product; record	Market analysis template, market size estimation data, competitor analysis

	estimate market size and demand for a farm product 3.3 Describe competitor analysis for a farm enterprise 3.4 Explain how to develop a marketing plan for a farm enterprise 3.5 Describe how to set realistic revenue projections for a farm business plan	size and demand estimation using secondary data •Demonstrate competitor analysis for one farm enterprise product •Demonstrate marketing plan development for one farm enterprise •Demonstrate revenue projection preparation for one farm enterprise	analysis template, marketing plan template, revenue projection template, projector.	trends •Estimate the market size and demand for the farm product in the local area. •Record data sources, estimation method and final figure •Conduct a competitor analysis for the farm enterprise. •Record three competitors, their prices, strengths and market share •Develop a marketing plan for the farm enterprise. •Record product, price, distribution channel and promotion strategy •Prepare five-year revenue projections for the farm enterprise. •Record sales volume, price and total revenue for each year	demand, price, competitors and market trends •Estimate the market size and demand for the farm product in the local area; record data sources, estimation method and final figure •Conduct a competitor analysis for the farm enterprise; record three competitors, their prices, strengths and market share •Develop a marketing plan for the farm enterprise; record product, price, distribution channel and promotion strategy •Prepare five-year revenue projections for the farm enterprise; record sales volume, price and total revenue for each year	template, marketing plan template, revenue projection template, smartphones, field notebooks.
GENERAL OBJECTIVE 4.0: Know technical planning for farm enterprises						

6– 8	4.1 Describe how to develop a technical production plan for a farm enterprise 4.2 Explain how to design the physical layout and infrastructure for a farm enterprise 4.3 Describe how to prepare an equipment and input procurement plan for a farm enterprise 4.4 Explain how to develop a staffing and operations management plan for a farm enterprise 4.5 Describe how to identify and address technical risks in a farm business plan	• Demonstrate technical production plan development for one farm enterprise • Demonstrate farm layout and infrastructure design for one enterprise • Demonstrate equipment and input procurement plan preparation • Demonstrate staffing and operations management plan development • Explain technical risk identification and mitigation in farm business planning	Technical production plan template, farm layout design guide, equipment and input procurement plan template, staffing plan template, technical risk identification guide, projector.	• Develop a technical production plan for one farm enterprise. • Record production system, inputs, yields and production schedule • Design the physical layout for the farm enterprise. • Sketch layout, label all structures and record dimensions • Prepare an equipment and input procurement plan. • Record each item, specification, supplier, quantity and cost • Develop a staffing and operations management plan; record roles, number of staff, duties and monthly labour cost • Identify three technical risks for the farm enterprise. • Record each risk, probability, impact and one mitigation measure	Guide students to: • Develop a technical production plan for one farm enterprise; record production system, inputs, yields and production schedule • Design the physical layout for the farm enterprise; sketch layout, label all structures and record dimensions • Prepare an equipment and input procurement plan; record each item, specification, supplier, quantity and cost • Develop a staffing and operations management plan; record roles, number of staff, duties and monthly labour cost • Identify three technical risks for the farm enterprise; record each risk, probability, impact and one mitigation measure	Technical production plan template, farm layout sketch template, equipment and input procurement plan template, staffing plan template, technical risk register, smartphones, field notebooks.

GENERAL OBJECTIVE 5.0: Understand financial planning and investment appraisal						
9– 12	5.1 Describe how to prepare a start-up cost and capital investment schedule for a farm enterprise 5.2 Explain how to develop a five-year income and expenditure projection for a farm enterprise 5.3 Describe how to prepare a cash flow forecast for a seasonal farm enterprise 5.4 Explain how to apply NPV, IRR and payback period to a farm investment appraisal 5.5 Describe how to conduct a sensitivity analysis on a farm business plan's financial projection	• Demonstrate start-up cost and capital investment schedule preparation • Demonstrate five-year income and expenditure projection preparation • Demonstrate cash flow forecast for a seasonal farm enterprise • Demonstrate NPV, IRR and payback period calculation for the farm investment • Demonstrate sensitivity analysis on the farm financial projections	Start-up cost schedule template, income and expenditure projection template, cash flow forecast template, NPV and IRR calculation guide, sensitivity analysis guide, projector.	• Prepare a start-up cost and capital investment schedule for the farm enterprise. • Record all items, specifications and costs • Prepare a five-year income and expenditure projection. • Record all income and expense categories and annual net profit • Prepare a quarterly cash flow forecast for year one. • Record all inflows, outflows and net cash balance per quarter • Calculate NPV, IRR and payback period for the farm investment. • Record all calculations and investment decision • Conduct a sensitivity analysis. • Record how NPV changes when revenue falls by 15% and costs rise by 15%	Guide students to: • Prepare a start-up cost and capital investment schedule for the farm enterprise; record all items, specifications and costs • Prepare a five-year income and expenditure projection; record all income and expense categories and annual net profit • Prepare a quarterly cash flow forecast for year one; record all inflows, outflows and net cash balance per quarter • Calculate NPV, IRR and payback period for the farm investment; record all calculations and investment decision • Conduct a sensitivity analysis: record how NPV changes when revenue falls by 15% and costs rise by 15%	Start-up cost schedule template, income and expenditure projection template, cash flow forecast template, NPV and IRR calculation worksheet, sensitivity analysis guide, smartphones, field notebooks.

GENERAL OBJECTIVE 6.0: Understand how to prepare and present a bankable farm business plan						
13– 15	4.6 Describe the structure and presentation standards of a bankable farm business plan 4.7 Explain how to write an executive summary for a farm business plan 4.8 Describe how to compile and format a complete farm business plan document 4.9 Explain how to present a farm business plan to a bank, investor or grant committee 4.10 Describe how to respond to questions and objections during a business plan presentation	• Describe bankable business plan structure and presentation standards • Demonstrate executive summary writing for a farm business plan • Demonstrate complete business plan compilation and formatting • Demonstrate farm business plan presentation to a mock bank committee • Explain how to respond to questions and objections professionally	Bankable farm business plan guide, executive summary template, business plan formatting guide, presentation assessment rubric, projector.	•Write an executive summary for the farm business plan. •Record enterprise overview, market opportunity, investment required and expected returns •Compile a complete farm business plan integrating all components prepared during the course; format professionally •Review and edit one classmate's farm business plan. •Record two strengths and two improvement recommendations •Present the farm business plan to a mock bank panel. •Record questions asked and responses given •Revise the business plan based on panel feedback. •Record changes made and improved sections	Guide students to: •Write an executive summary for the farm business plan; record enterprise overview, market opportunity, investment required and expected returns •Compile a complete farm business plan integrating all components prepared during the course; format professionally •Review and edit one classmate's farm business plan; record two strengths and two improvement recommendations •Present the farm business plan to a mock bank panel; record questions asked and responses given •Revise the business plan based on panel feedback; record	Executive summary template, farm business plan formatting guide, peer review form, mock bank panel assessment rubric, smartphones, field notebooks.

					changes made and improved sections	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

AGRICULTURAL COMMODITY TRADING AND PRICE ANALYSIS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRICULTURAL COMMODITY TRADING AND PRICE ANALYSIS	**COURSE CODE: ABM 323**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in agricultural commodity trading, price analysis and market intelligence for agribusiness decision-making.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand agricultural commodity markets and trading systems; 2.0 Know commodity exchange trading operations ; 3.0 Understand agricultural commodity storage and arbitrage; 4.0 Know digital platforms and tools for commodity trading; 5.0 Understand commodity trading risk management.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT						
COURSE TITLE: AGRICULTURAL COMMODITY TRADING AND PRICE ANALYSIS			COURSE CODE: ABM 323		CONTACT HOURS: 3 HOURS/WEEK	
YEAR: I SEMESTER: II			CREDIT UNIT: 3		THEORETICAL: 1 HOUR/WEEK	
			PRE-REQUISITE:		PRACTICAL: 2 HOURS/WEEK	
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL						
GOAL: This course is designed to equip students with knowledge and skills in agricultural commodity trading, price analysis and market intelligence for agribusiness decision-making.						
GENERAL OBJECTIVE 1.0: Understand agricultural commodity markets and trading systems						
THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES
1 – 2	1.1 Define agricultural commodity trading 1.2 explain agricultural commodity trading role in the agribusiness value chain 1.3 Describe types of agricultural commodity markets: spot, forward and futures markets 1.4 Explain the role of commodity exchanges, brokers and aggregators in	•Explain commodity trading; explain role in agribusiness value chain •Describe market types with Nigerian commodity examples for each •Explain exchange, broker and aggregator roles with Nigerian commodity trading examples •Describe major Nigerian commodity	Commodity market types guide, Nigerian commodity exchange guide, AFEX platform information, commodity market infrastructure guide, projector.	• Research two Nigerian agricultural commodity trading platforms; record commodities traded, services, fees and how to register • Visit or access one commodity exchange or aggregator; record commodities traded, prices, volumes and one trading observation • Map the commodity trading system for one Nigerian agricultural product; record all	Guide students to: • Research two Nigerian agricultural commodity trading platforms; record commodities traded, services, fees and how to register • Visit or access one commodity exchange or aggregator;	Nigerian commodity trading platform research guide, commodity market visit guide, commodity trading system map template, Smartphones, Field notebooks.

	Nigerian agricultural trading 1.5 Describe the major agricultural commodity trading platforms in Nigeria: AFEX, LME and digital platforms 1.6 Explain how commodity market infrastructure development improves agribusiness outcomes in Nigeria	platforms with services, fees and commodities handled • Explain market infrastructure improvement and agribusiness outcomes with evidence		actors, trading methods and price formation • Classify five agricultural commodities by their primary market type in Nigeria. • Record commodity, market type and justification • Present the commodity trading system map to the class. • Create visual content to explain each actor and two market efficiency improvement opportunities	record commodities traded, prices, volumes and one trading observation • Map the commodity trading system for one Nigerian agricultural product; record all actors, trading methods and price formation • Classify five agricultural commodities by their primary market type in Nigeria; record commodity, market type and justification • Present the commodity trading system map to the class; explain each actor and two market efficiency improvement	

					opportunities	
GENERAL OBJECTIVE 2.0: Know commodity exchange trading operations						
3– 7	2.1 Describe the operational procedures of a commodity exchange: listing, trading and settlement 2.2 Explain how to open and operate a commodity exchange trading account 2.3 Describe forward contracts and how they are used for price risk management in agribusiness 2.4 Explain basis risk and how it affects agribusiness commodity trading decisions 2.5 Describe how to calculate net marketing margin on commodity exchange transactions	• Describe commodity exchange operational procedures with AFEX or similar example • Demonstrate trading account setup procedure for one commodity exchange • Explain forward contracts with a Nigerian commodity trading example • Explain basis risk with a Nigerian commodity market example • Demonstrate PandL calculation for one commodity exchange transaction	Commodity exchange operational guide, trading account setup guide, forward contract guide, basis risk explanation, PandL calculation worksheet, projector.	• Simulate opening a commodity exchange trading account; record registration steps, required documents and account features • Execute a mock commodity forward contract for one agricultural commodity. • Record commodity, grade, quantity, delivery date and price • Calculate the profit or loss on a mock commodity exchange transaction. • Record purchase price, selling price, quantity and net marketing margin • Identify the base risk in one commodity exchange scenario. • Record cash price, futures price, base and expected base change • Prepare a commodity exchange trading report for one mock transaction.	Guide students to: • Simulate opening a commodity exchange trading account; record registration steps, required documents and account features • Execute a mock commodity forward contract for one agricultural commodity; record commodity, grade, quantity, delivery date and price • Calculate the profit or loss on a mock commodity exchange transaction; record purchase price, selling price, quantity and net marketing margin	Commodity exchange simulation guide, forward contract template, PandL calculation worksheet, basis risk identification guide, commodity trading report template, smartphones, field notebooks.

				• Record commodity, entry, exit, net marketing margin and one trading lesson	• Identify the base risk in one commodity exchange scenario; record cash price, futures price, base and expected base change • Prepare a commodity exchange trading report for one mock transaction; record commodity, entry, exit, net marketing margin and one trading lesson	
GENERAL OBJECTIVE 3.0: Understand agricultural commodity storage and arbitrage						
5 – 9	3.1 Describe the role of storage in agricultural commodity trading and price formation 3.2 Explain the warehouse receipt system and its application in commodity trading in	• Explain storage role in commodity trading and price formation • Explain warehouse receipt system with Nigerian example • Describe spatial arbitrage with Nigerian inter-market commodity price examples	Commodity storage guide, warehouse receipt system guide, spatial arbitrage price data, temporal arbitrage guide, storage arbitrage profitability	• Collect commodity prices from three markets for one product. • Calculate the spatial arbitrage opportunity and net profit after transport cost • Calculate the temporal arbitrage opportunity for one commodity: record	Guide students to: • Collect commodity prices from three markets for one product; calculate the spatial arbitrage opportunity and net profit after	Commodity price data from multiple markets, spatial arbitrage calculation worksheet, temporal arbitrage calculation worksheet,

	Nigeria 3.3 Describe spatial arbitrage and how to identify profitable arbitrage opportunities in Nigerian markets 3.4 Explain temporal arbitrage and how commodity storage creates arbitrage opportunities 3.5 Describe how to calculate the profitability of a commodity storage and arbitrage strategy	• Describe temporal arbitrage with seasonal commodity storage examples • Demonstrate storage arbitrage profitability calculation	worksheet, projector.	purchase price, storage cost, holding period and expected selling price • Evaluate the profitability of a commodity storage strategy • Record all costs, expected price appreciation and net profit per tonne • Identify one warehouse receipt system facility in Nigeria. • Record location, commodities accepted, storage fees and loan-to-value ratio • Prepare an arbitrage strategy report for one commodity. • Record strategy type, market selected, expected profit and associated risks	transport cost • Calculate the temporal arbitrage opportunity for one commodity: record purchase price, storage cost, holding period and expected selling price • Evaluate the profitability of a commodity storage strategy; record all costs, expected price appreciation and net profit per tonne • Identify one warehouse receipt system facility in Nigeria; record location, commodities accepted, storage fees and loan-to-value ratio • Prepare an arbitrage strategy report for one	warehouse receipt system guide, arbitrage strategy report template, smartphones, field notebooks.

					commodity; record strategy type, market selected, expected profit and associated risks	
GENERAL OBJECTIVE 4.0: Know digital platforms and tools for commodity trading						
10– 11	4.1 Describe digital commodity trading platforms available to Nigerian agribusiness operators 4.2 Explain how to access and use price information services for commodity trading decisions 4.3 Describe how to use mobile apps and USSD for commodity price discovery in rural areas 4.4 Explain how blockchain technology is improving commodity trading transparency in agribusiness 4.5 Describe how to	•Describe digital commodity trading platforms with Nigerian examples and fees •Demonstrate price information service access for commodity trading •Demonstrate mobile app and USSD for commodity price discovery •Explain blockchain in commodity trading with Nigerian agribusiness examples •Demonstrate digital commodity trading strategy development	Digital commodity trading platform guide, price information services, smartphone, mobile apps for commodity price discovery, blockchain guide, projector.	•Access two digital commodity price platforms. •Record commodities listed, prices on the same date and platform comparison •Use a mobile app or USSD to check commodity prices in three markets. •Record platform, commodity, prices and best market identified •Develop a digital commodity trading strategy for one agribusiness enterprise. •Record commodities, platforms, buy and sell triggers and expected margin •Research one blockchain-based commodity trading	Guide students to: •Access two digital commodity price platforms; record commodities listed, prices on the same date and platform comparison •Use a mobile app or USSD to check commodity prices in three markets; record platform, commodity, prices and best market identified •Develop a digital commodity trading strategy for one agribusiness	Digital commodity trading platforms, smartphone, commodity price mobile apps, blockchain commodity trading research guide, digital versus traditional trading comparison template, smartphones, field notebooks.

	develop a digital commodity trading strategy for an agribusiness enterprise			application in Africa. • Record platform, commodity, features and benefit for Nigerian agribusiness • Compare digital versus traditional commodity trading for one enterprise. • Record time saving, cost reduction and risk improvement for each	enterprise; record commodities, platforms, buy and sell triggers and expected margin • Research one blockchain-based commodity trading application in Africa; record platform, commodity, features and benefit for Nigerian agribusiness • Compare digital versus traditional commodity trading for one enterprise; record time saving, cost reduction and risk improvement for each	
GENERAL OBJECTIVE 5.0: Understand commodity trading risk management						
12– 15	5.1 Describe the types of risk in agricultural commodity trading: price, quality, counterparty and	• Describe commodity trading risk types with Nigerian agribusiness examples for each • Explain forward contract	Commodity trading risk types guide, hedging guide, commodity	• Identify four trading risks for one commodity trading scenario. • Record risk type, probability, impact and	Guide students to: • Identify four trading risks for one commodity trading scenario;	Commodity trading risk identification guide, forward contract hedge

	logistics risk 5.2 Explain how forward contracts and futures are used for commodity price risk hedging 5.3 Describe how commodity insurance products manage trading risks in agribusiness 5.4 Explain how to develop a commodity trading risk management plan for an agribusiness enterprise 5.5 Describe how position limits and stop-loss rules manage trading risk in commodity markets	and futures hedging with a Nigerian crop commodity example • Describe commodity insurance products available in Nigeria with coverage details • Demonstrate commodity trading risk management plan development • Explain position limits and stop-loss rules with commodity trading examples	insurance products guide, risk management plan template, position limits and stop-loss guide, projector.	one mitigation measure • Design a forward contract hedge for one commodity trading position • Record commodity, quantity, contract price and hedge effectiveness • Research one commodity insurance product in Nigeria. • Record provider, coverage, premium, exclusions and how to claim • Prepare a commodity trading risk management plan for one agribusiness enterprise. • Record risks, mitigation strategies and monitoring procedures • Present the risk management plan to the class. • Identify three most important risks and the strategies recommended to manage them	record risk type, probability, impact and one mitigation measure • Design a forward contract hedge for one commodity trading position; record commodity, quantity, contract price and hedge effectiveness • Research one commodity insurance product in Nigeria; record provider, coverage, premium, exclusions and how to claim • Prepare a commodity trading risk management plan for one agribusiness enterprise; record risks, mitigation strategies and	template, commodity insurance research guide, commodity trading risk management plan template, smartphones, field notebooks.

					monitoring procedures • Present the risk management plan to the class; explain the three most important risks and the strategies recommended to manage them	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

AGRITECH ENTREPRENEURSHIP AND INNOVATION LABORATORY

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRITECH ENTREPRENEURSHIP AND INNOVATION LABORATORY	**COURSE CODE: ABM 324**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in agritech entrepreneurship, digital innovation and start-up development for Nigerian agribusiness.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the agritech ecosystem and innovation landscape in Nigeria; 2.0 Know design thinking to agritech problem solving; 3.0 Understand agritech start-up ideation and validation; 4.0 Know agritech business model development; 5.0 Know digital product development and prototyping; 6.0 Understand agritech start-up pitching and fundraising;		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRITECH ENTREPRENEURSHIP AND INNOVATION LABORATORY	**COURSE CODE: ABM 324**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and practical skills in agritech entrepreneurship, digital innovation and start-up development for Nigerian agribusiness.		
GENERAL OBJECTIVE 1.0: Understand the agritech ecosystem and innovation landscape in Nigeria		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1	1.1 Define agritech 1.2 Describe agritech scope: precision agriculture, e-commerce, fintech, logistics and traceability 1.3 Describe the Nigerian agritech ecosystem: startups, investors, hubs and government support 1.4 Explain how agritech is transforming Nigerian agricultural value chains	• Explain agritech; describe scope with Nigerian examples for each category • Describe Nigerian agritech ecosystem actors with examples and functions • Explain agritech transformation of value chains with Nigerian case studies • Describe agritech innovation gaps and opportunities in Nigeria	Nigerian agritech ecosystem map, agritech transformation case studies, agritech innovation gap analysis, Nigerian agritech startup profiles, projector.	• Research five Nigerian agritech startups. • Record startup name, problem solved, technology used, target users and funding raised • Map the identified agritech ecosystem. • Record actors by category: startups, investors, hubs, government and their roles • Evaluate one of the mapped agritech startup;	• Research five Nigerian agritech startups; record startup name, problem solved, technology used, target users and funding raised • Map the identified agritech ecosystem; record actors by category: startups,	Nigerian agritech startup research guide, agritech ecosystem map template, agritech innovation gap identification guide, startup evaluation template, smartphones, field notebooks.

	1.5 Describe the gaps and challenges that create opportunities for agritech innovation in Nigeria 1.6 Explain successful Nigerian agritech startups and the problems they solve	• Present five successful Nigerian agritech startups with problem, solution and impact		record problem, solution, business model, impact and one improvement recommended • Present the agritech ecosystem map to the class; explain two key ecosystem actors and two innovation opportunities identified	investors, hubs, government and their roles • Evaluate one of the mapped agritech startup; record problem, solution, business model, impact and one improvement recommended • Present the agritech ecosystem map to the class; explain two key ecosystem actors and two innovation opportunities identified	
GENERAL OBJECTIVE 2.0: Know design thinking to agritech problem solving						
2– 3	1.7 Describe the five stages of design thinking: empathise, define, ideate, prototype and test 1.8 Explain how to conduct user interviews and observation for agritech problem	•Describe the five design thinking stages with an agritech application example for each •Demonstrate user interview and observation techniques for one agritech problem •Demonstrate problem statement and user	Design thinking process guide, user interview guide, problem statement template, user persona template, ideation techniques guide, projector.	•Conduct user interviews with five agribusiness operators on one problem. •Record responses and key insights from each interview •Create a user persona for one agritech solution. •Record user profile,	Guide students to: •Conduct user interviews with five agribusiness operators on one problem; record responses and key insights from each interview •Create a user	User interview guide, user persona template, problem statement template, ideation brainstorming guide, design thinking process

	discovery 1.9 Describe how to create a problem statement and user persona for an agritech solution 1.10 Explain ideation techniques: brainstorming, mind mapping and SCAMPER for agritech innovation 1.11 Describe how to apply design thinking to one agribusiness problem in Nigeria	persona creation for one agritech user • Demonstrate ideation techniques applied to one agritech problem • Apply design thinking to one Nigerian agribusiness problem demonstration		goals, pain points and technology access level • Write a problem statement for one agritech opportunity • Generate ten solution ideas for the problem using brainstorming. • Record all ideas and select the top three with justification • Apply the full design thinking process to one agribusiness problem. • Record each stage outcome and present the proposed solution	persona for one agritech solution; record user profile, goals, pain points and technology access level • Write a problem statement for one agritech opportunity • Generate ten solution ideas for the problem using brainstorming; record all ideas and select the top three with justification • Apply the full design thinking process to one agribusiness problem; record each stage outcome and present the proposed solution	worksheet, smartphones, field notebooks.
GENERAL OBJECTIVE 3.0: Understand agritech startup ideation and validation						
4– 5	3.1 Describe how to identify and evaluate	• Describe agritech opportunity assessment	Agritech opportunity	• Assess one agritech startup idea using an	Guide students to: • Assess one	Agritech opportunity

	agritech startup ideas using opportunity assessment tools 3.2 Explain the lean startup methodology and its application to agritech ventures 3.3 Describe how to develop and test a Minimum Viable Product (MVP) for an agritech solution 3.4 Explain how to validate an agritech startup idea through customer discovery 3.5 Describe how to use pivot or persevere decisions based on validation evidence	using market, technology and impact criteria • Explain lean startup methodology with an agritech MVP example • Demonstrate MVP development for one agritech solution concept • Demonstrate customer discovery process for one agritech idea validation • Explain pivot or persevere decision-making with agritech startup examples	assessment tool, lean startup methodology guide, MVP development guide, customer discovery guide, pivot or persevere decision framework, projector.	opportunity assessment tool. • Record market size, technology feasibility, impact and viability score • Develop a Minimum Viable Product concept for one agritech idea; record what the MVP is, what it tests and how to build it simply • Conduct customer discovery with five potential users of the MVP. • Record each user response and key validation or invalidation finding • Make a pivot or persevere decision. • Based on customer discovery. • Record evidence, decision made and next development step • Present the agritech startup idea, MVP concept and validation findings to the class; explain decision made and reasoning	agritech startup idea using an opportunity assessment tool; record market size, technology feasibility, impact and viability score • Develop a Minimum Viable Product concept for one agritech idea; record what the MVP is, what it tests and how to build it simply • Conduct customer discovery with five potential users of the MVP; record each user response and key validation or invalidation finding • Based on customer discovery, make a pivot or persevere decision; record	assessment tool, MVP development guide, customer discovery recording form, pivot or persevere decision framework, smartphones, field notebooks.

					evidence, decision made and next development step • Present the agritech startup idea, MVP concept and validation findings to the class; explain decision made and reasoning	
GENERAL OBJECTIVE 4.0: Know agritech business model development						
6– 8	4.1 Describe how to complete a Business Model Canvas (BMC) for an agritech startup 4.2 Explain revenue model options for agritech startups: SaaS, freemium, transaction fee and marketplace 4.3 Describe how to develop a cost structure for an agritech startup 4.4 Explain unit economics for agritech: customer acquisition cost	• Demonstrate Business Model Canvas completion for one agritech startup • Describe revenue model options with agritech startup examples for each • Demonstrate cost structure development for one agritech startup • Explain unit economics; demonstrate CAC, LTV and gross margin calculation for one agritech startup • Explain lean business model testing and iteration with agritech	Business Model Canvas, agritech revenue model guide, cost structure template, unit economics calculation guide, lean business model testing guide, projector.	• Complete a Business Model Canvas for one agritech startup idea. • Record all nine building blocks with specific agritech details • Select the most appropriate revenue model for one agritech startup. • Record model, justification and projected revenue for year one • Develop the cost structure for the agritech startup; record fixed costs, variable costs and total monthly operating	Guide students to: • Complete a Business Model Canvas for one agritech startup idea; record all nine building blocks with specific agritech details • Select the most appropriate revenue model for one agritech startup; record model, justification and projected revenue for year	Business Model Canvas, agritech revenue model comparison guide, cost structure template, unit economics calculation worksheet, business model testing feedback form, smartphones, field notebooks.

	(CAC), life time value (LTV) and gross margin 4.5 Describe how to test and iterate an agritech business model using lean principles	examples		cost • Calculate CAC, LTV and gross margin for the agritech startup. • Record all calculation steps and interpret the unit economics • Test the business model with five potential customers. • Record feedback and identify two model changes recommended	one • Develop the cost structure for the agritech startup; record fixed costs, variable costs and total monthly operating cost • Calculate CAC, LTV and gross margin for the agritech startup; record all calculation steps and interpret the unit economics • Test the business model with five potential customers; record feedback and identify two model changes recommended	
GENERAL OBJECTIVE 5.0: Know digital product development and prototyping						
9– 11	5.1 Describe the digital product development process: discovery, design, development and launch 5.2 Explain how to create a wireframe	• Describe digital product development process with an agritech app example • Demonstrate wireframe and user flow creation for one agritech app	Digital product development guide, wireframe tool, user flow diagram template, no-code prototype	• Create a wireframe for two screens of one agritech mobile app. • Record each screen's purpose, elements and user actions • Map the user flow for	Guide students to: • Create a wireframe for two screens of one agritech mobile app; record each	Free wireframe tool, user flow diagram template, no-code prototype tool, user testing feedback form,

	and user flow for an agritech mobile or web application 5.3 Describe how to use no-code tools to build a simple agritech product prototype 5.4 Explain how to conduct user testing on an agritech prototype 5.5 Describe how to prepare product specifications for an agritech developer	screen • Demonstrate no-code prototype building using a free tool • Demonstrate user testing procedure for one agritech prototype • Demonstrate product specification preparation for a developer	tool, user testing guide, product specification template, projector.	one agritech solution from app entry to task completion; record each step and decision point • Build a simple clickable prototype for one agritech concept using a no-code tool. • Record tool used, screens built and features demonstrated • Conduct user testing on the prototype with three potential users. • Record each user's feedback, confusion points and one improvement recommended • Prepare product specifications for the agritech solution. • Record features, user stories, acceptance criteria and technical notes for each feature	screen's purpose, elements and user actions • Map the user flow for one agritech solution from app entry to task completion; record each step and decision point • Build a simple clickable prototype for one agritech concept using a no-code tool; record tool used, screens built and features demonstrated • Conduct user testing on the prototype with three potential users; record each user's feedback, confusion points and one improvement recommended • Prepare product specifications for the agritech	product specification template, smartphones, field notebooks.

					solution; record features, user stories, acceptance criteria and technical notes for each feature	
GENERAL OBJECTIVE 6.0: Understand agritech startup pitching and fundraising						
12– 15	6.1 Describe the components of an effective agritech startup pitch: problem, solution, market, traction, team and ask 6.2 Explain how to develop a compelling agritech startup narrative and value proposition 6.3 Describe funding sources for agritech startups in Nigeria: agribusinesses, grants, angels, VCs and accelerators 6.4 Explain how to prepare a pitch deck for an agritech startup investor presentation 6.5 Describe how to respond to investor	• Describe pitch components with a successful agritech startup pitch example • Explain startup narrative and value proposition development with agritech examples • Describe Nigerian agritech funding sources with application examples for each • Demonstrate ten-slide pitch deck preparation for one agritech startup • Explain investor question response and due diligence preparation	Agritech pitch component guide, startup narrative guide, Nigerian agritech funding sources guide, pitch deck template, investor due diligence guide, projector.	• Develop a three-minute verbal pitch for one agritech startup. • Record all six pitch components and rehearse delivery • Prepare a ten-slide pitch deck for the agritech startup. • Record content of each slide and design rationale • Deliver the pitch to the class as a mock investor panel. • Record questions asked and responses given • Research two relevant Nigerian agritech funding sources for the agritech solution. • Record funder, focus, amount, eligibility and application process	Guide students to: • Develop a three-minute verbal pitch for one agritech startup; record all six pitch components and rehearse delivery • Prepare a ten-slide pitch deck for the agritech startup; record content of each slide and design rationale • Deliver the pitch to the class as a mock investor panel; record questions asked and responses given • Research two relevant Nigerian	Agritech pitch component guide, pitch deck template, mock investor panel assessment rubric, Nigerian agritech funding sources research guide.

	questions and due diligence requests professionally			• Revise the pitch deck based on panel feedback. • Record feedback received, changes made and improved slides	agritech funding sources for the agritech solution; record funder, focus, amount, eligibility and application process • Revise the pitch deck based on panel feedback; record feedback received, changes made and improved slides	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

PRACTICAL AGRIBUSINESS ENTERPRISE

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: PRACTICAL AGRIBUSINESS ENTERPRISE	**COURSE CODE:** ABM 325	**CONTACT HOURS: 3** HOURS/WEEK
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL:** NIL
	PRE-REQUISITE:	**PRACTICAL: 3** HOURS/WEEK
GOAL: This course is designed to equip students with hands-on experience in planning, establishing and managing a practical agribusiness enterprise.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Apply enterprise planning and setup for a practical agribusiness; 2.0 Apply production and operations management in the enterprise; 3.0 Apply marketing and sales management in the enterprise ; 4.0 Apply financial management and record keeping in the enterprise; 5.0 Apply quality management and food safety in the enterprise; 6.0 Demonstrate entrepreneurial conduct and professional management;		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: PRACTICAL AGRIBUSINESS ENTERPRISE	**COURSE CODE: ABM 325**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: NIL**
	PRE-REQUISITE:	**PRACTICAL: 3 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with hands-on experience in planning, establishing and managing a practical agribusiness enterprise.		
GENERAL OBJECTIVE 1.0: Apply enterprise planning and setup for a practical agribusiness		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 3				• Participate in enterprise concept finalisation. • Record concept, product, target market and team roles assigned • Complete all enterprise setup activities. • Record each task, date completed and person responsible • Prepare a semester enterprise work plan. • Record all activities, timelines, milestones and responsible persons • Prepare an enterprise	Guide students to: • Participate in enterprise concept finalisation; record concept, product, target market and team roles assigned • Complete all enterprise setup activities; record each task, date completed and person responsible • Prepare a	Enterprise concept document, enterprise setup checklist, work plan template, semester budget template, smartphones, field notebooks.

				budget for the semester. • Record all income and expense categories and net profit target • Present the enterprise plan and budget to the supervisor and panel. • Create presentation slides to explain enterprise concept, setup status and semester targets • Revise the enterprise plan with feedback from the supervisor and panel	semester enterprise work plan; record all activities, timelines, milestones and responsible persons • Prepare an enterprise budget for the semester; record all income and expense categories and net profit target • Present the enterprise plan and budget to the supervisor and panel; explain enterprise concept, setup status and semester targets • Revise the enterprise plan with feedback from the supervisor and panel	
GENERAL OBJECTIVE 2.0: Apply production and operations management in the enterprise						
4 – 6				• Execute the enterprise production plan weekly.	Guide students to: • Execute the	Enterprise production plan,

				• Record date, inputs used, output produced, quality score and any deviation from plan • Source all required inputs. • Record supplier, price, quantity, quality inspection result and date received for each input • Apply standardised production procedures for all enterprise production runs. • Record adherence level and any procedural deviation • Maintain a weekly production monitoring log. • Record output quantities, quality grades and waste levels each week • Maintain a stock and inventory record. • Record opening stock, purchases, usage and closing stock for all key inputs weekly	enterprise production plan weekly; record date, inputs used, output produced, quality score and any deviation from plan • Source all required inputs; record supplier, price, quantity, quality inspection result and date received for each input • Apply standardised production procedures for all enterprise production runs; record adherence level and any procedural deviation • Maintain a weekly production monitoring log; record output quantities, quality grades and waste levels each week	input sourcing record form, standardised procedures, production monitoring log, inventory record form, smartphones, field notebooks.

					• Maintain a stock and inventory record; record opening stock, purchases, usage and closing stock for all key inputs weekly	
GENERAL OBJECTIVE 3.0: Apply marketing and sales management in the enterprise						
7-9				• Implement the enterprise marketing plan. • Post at least three digital marketing messages and conduct two sales activities each month • Record all sales transactions. • Record date, product, quantity, price, customer and payment method for each sale • Maintain a customer relationship record. • Record customer name, contact, purchase history and one follow-up action for each customer • Calculate weekly sales performance. • Record units sold, revenue, target versus actual and percentage	Guide students to: • Implement the enterprise marketing plan; post at least three digital marketing messages and conduct two sales activities each month • Record all sales transactions; record date, product, quantity, price, customer and payment method for each sale • Maintain a customer relationship record; record customer name, contact, purchase	Enterprise marketing plan, sales transaction record form, CRM record template, digital marketing platform, sales performance recording form, smartphones, field notebooks.

				achievement each week • Prepare a monthly sales performance report. • Record total sales, top product, best customer and two marketing improvements recommended	history and one follow-up action for each customer • Calculate weekly sales performance; record units sold, revenue, target versus actual and percentage achievement each week • Prepare a monthly sales performance report; record total sales, top product, best customer and two marketing improvements recommended	
GENERAL OBJECTIVE 4.0: Apply financial management and record keeping in the enterprise						
10-11				• Record all enterprise income and expenses daily. • Record date, description, amount and category for each transaction • Prepare a weekly income statement from enterprise records. • Record total income,	Guide students to: • Record all enterprise income and expenses daily; record date, description, amount and category for each transaction • Prepare a weekly	Enterprise income and expense record form, weekly income statement template, petty cash book template, financial reconciliation

				total expenses and weekly net profit • Manage petty cash for the enterprise. • Maintain a petty cash book recording all payments and receipts • Reconcile enterprise cash records with mobile money or bank records for one month. • Record any discrepancies and corrective action • Prepare a semester enterprise financial summary. • Record total income, total expenses, net profit and return on investment	income statement from enterprise records; record total income, total expenses and weekly net profit • Manage petty cash for the enterprise; maintain a petty cash book recording all payments and receipts • Reconcile enterprise cash records with mobile money or bank records for one month; record any discrepancies and corrective action • Prepare a semester enterprise financial summary; record total income, total expenses, net profit and return on investment	guide, semester financial summary template, smartphones, field notebooks.
GENERAL OBJECTIVE 5.0: Apply quality management and food safety in the enterprise						

12-13				• Carry out quality control checks at two stages of every production run. • Record findings and any corrective action taken • Complete personal hygiene and food safety requirements before every production session. • Record compliance status each session • Package and label the enterprise product to quality standards. • Record packaging material, label elements and packaging cost per unit • Handle one mock customer quality complaint • Record complaint received, investigation done and resolution provided • Prepare a quality management summary for the semester. • Record QC results, non-conformances found and corrective actions taken	Guide students to: • Carry out quality control checks at two stages of every production run; record findings and any corrective action taken • Complete personal hygiene and food safety requirements before every production session; record compliance status each session • Package and label the enterprise product to quality standards; record packaging material, label elements and packaging cost per unit • Handle one mock customer quality complaint; record complaint received, investigation done and	Quality control check form, personal hygiene compliance form, packaging and labelling guide, customer complaint record form, quality management summary template, smartphones, field notebooks.

					resolution provided • Prepare a quality management summary for the semester; record QC results, non-conformances found and corrective actions taken	
GENERAL OBJECTIVE 6.0: Demonstrate entrepreneurial conduct and professional management						
14 – 15				• Lead one enterprise team session per month. • Record tasks assigned, team performance and one lesson learned • Implement one enterprise innovation during the semester. • Record change made, reason and impact on quality or sales • Give written constructive feedback to one teammate each month. • Record two strengths and two improvement areas • Receive and respond to supervisor feedback on enterprise performance.	Guide students to: • Lead one enterprise team session per month; record tasks assigned, team performance and one lesson learned • Implement one enterprise innovation during the semester; record change made, reason and impact on quality or sales • Give written constructive feedback to one teammate each	Team leadership record form, enterprise innovation record, peer feedback form, supervisor feedback form, semester enterprise performance report template, Smartphones, field notebooks.

				• Record feedback received and action taken • Prepare and present the final semester enterprise performance report. • Record total production, income, profit, challenges and lessons learnt	month; record two strengths and two improvement areas • Receive and respond to supervisor feedback on enterprise performance; record feedback received and action taken • Prepare and present the final semester enterprise performance report; record total production, income, profit, challenges and lessons learnt	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

AGRIBUSINESS FINANCIAL MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS FINANCIAL MANAGEMENT	**COURSE CODE: ABM 326**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in financial management for agribusiness enterprises including capital structure, working capital and dividend policy.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand financial management concepts and objectives in agribusiness; 2.0 Understand working capital management in agribusiness; 3.0 Understand capital structure and financing decisions in agribusiness; 4.0 Know dividend policy and profit distribution in agribusiness; 5.0 Know financial planning and control in agribusiness; 6.0 Understand agribusiness financial distress and restructuring;		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS FINANCIAL MANAGEMENT	**COURSE CODE: ABM 326**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in financial management for agribusiness enterprises including capital structure, working capital and dividend policy.		
GENERAL OBJECTIVE 1.0: Understand financial management concepts and objectives in agribusiness		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1-2	1.1 Define financial management 1.2 Explain financial management importance for agribusiness enterprise success 1.3 Describe the goals of financial management in agribusiness: profit maximisation versus wealth maximisation. 1.4 Explain the functions of the	• Explain financial management; explain importance with agribusiness examples • Discuss profit versus wealth maximisation with agribusiness enterprise implications • Describe financial manager functions with agribusiness application examples • Explain relationship	Financial management concepts guide, profit versus wealth maximisation comparison, financial manager role guide, financial management environment guide, projector.	• Classify ten financial management decisions as investment, financing or dividend decisions. • Record each classification and justification • Compare profit maximisation and wealth maximisation goals for one agribusiness. • Record implications of each goal for	Guide students to: • Classify ten financial management decisions as investment, financing or dividend decisions; record each classification and justification • Compare profit maximisation and wealth maximisation goals for one	Financial management decision classification worksheet, profit versus wealth maximisation comparison guide, financial management function map template, smartphones, field notebooks.

	financial manager in an agribusiness enterprise 1.5 Describe the relationship between financial management and other management functions in agribusiness 1.6 Explain the financial management environment: capital markets, regulatory framework and taxation	between financial management and other functions • Explain financial management environment with Nigerian agribusiness context		enterprise decisions • Identify the financial management decisions made in one agribusiness enterprise in the past year. • Record each decision and its impact • Prepare a financial management function map for one agribusiness. • Record functions, responsibilities and how they link to other departments • Present the financial management function map to the class. • Develop posters to explain each function and two key financial decisions its support	agribusiness; record implications of each goal for enterprise decisions • Identify the financial management decisions made in one agribusiness enterprise in the past year; record each decision and its impact • Prepare a financial management function map for one agribusiness; record functions, responsibilities and how they link to other departments • Present the financial management function map to the class. • Develop posters to explain each function and two key financial decisions its support	
GENERAL OBJECTIVE 2.0: Understand working capital management in agribusiness						

3– 4	1.7 Define working capital 1.8 Explain working capital importance for agribusiness liquidity management 1.9 Describe the working capital cycle in an agribusiness enterprise 1.10 Explain how to manage accounts receivable in an agribusiness enterprise 1.11 Describe how to manage inventory levels for agribusiness efficiency 1.12 Explain how to manage accounts payable and trade credit in agribusiness	• Define working capital; explain importance with agribusiness liquidity examples • Describe working capital cycle with an agro-processing enterprise example • Explain accounts receivable management with credit policy examples • Describe inventory management methods with agribusiness examples • Explain accounts payable and trade credit management with agribusiness examples	Working capital cycle diagram, accounts receivable management guide, inventory management guide, accounts payable management guide, projector.	• Calculate the working capital cycle length for one agribusiness enterprise. • Record inventory days, receivable days, payable days and cash conversion cycle • Prepare an accounts receivable aging analysis for one agribusiness. • Record debtor, amount, days outstanding and collection action needed • Calculate the economic order quantity (EOQ) for one agribusiness inventory item. • Record all inputs and EOQ calculation steps • Evaluate the trade credit terms offered by three suppliers. • Record terms, cost of credit and recommended supplier • Prepare a working capital management plan for one agribusiness enterprise. • Record current levels, targets and	Guide students to: • Calculate the working capital cycle length for one agribusiness enterprise; record inventory days, receivable days, payable days and cash conversion cycle • Prepare an accounts receivable aging analysis for one agribusiness; record debtor, amount, days outstanding and collection action needed • Calculate the economic order quantity (EOQ) for one agribusiness inventory item; record all inputs and EOQ calculation steps • Evaluate the trade credit terms offered by three suppliers; record terms, cost of credit and recommended supplier	Working capital cycle calculation worksheet, accounts receivable ageing analysis template, EOQ calculation guide, supplier trade credit comparison template, working capital management plan template, Smartphones, field notebooks.

				improvement actions	• Prepare a working capital management plan for one agribusiness enterprise; record current levels, targets and improvement actions	
GENERAL OBJECTIVE 3.0: Understand capital structure and financing decisions in agribusiness						
5– 7	3.1 Define capital structure 3.2 Explain the importance of capital structure for agribusiness enterprise value 3.3 Describe sources of long-term finance for agribusiness: equity, long-term debt and hybrid instruments 3.4 Explain how to calculate the weighted average cost of capital (WACC) for an agribusiness enterprise 3.5 Describe the factors that determine the optimal capital structure for an	• Define capital structure; explain importance with agribusiness enterprise value examples • Describe long-term finance sources with Nigerian agribusiness examples for each • Demonstrate WACC calculation for one agribusiness enterprise • Explain capital structure determinants with agribusiness examples • Explain financial leverage; demonstrate DFL calculation for one agribusiness	Capital structure guide, long-term finance sources guide, WACC calculation worksheet, capital structure determinants guide, financial leverage guide, projector.	• Identify the capital structure of two agribusiness enterprises. • Record equity, long-term debt and hybrid instruments for each • Calculate the WACC for one agribusiness enterprise. • Record all components, weights, costs and final WACC • Evaluate the capital structure of one agribusiness enterprise. • Record debt-to-equity ratio, cost of capital and give one recommendation • Calculate the degree of financial leverage (DFL) for one	Guide students to: • Identify the capital structure of two agribusiness enterprises; record equity, long-term debt and hybrid instruments for each • Calculate the WACC for one agribusiness enterprise; record all components, weights, costs and final WACC • Evaluate the capital structure of one agribusiness enterprise; record debt-to-equity ratio, cost of capital and give one	Capital structure identification template, WACC calculation worksheet, capital structure evaluation guide, DFL calculation worksheet, capital structure recommendation template.

	agribusiness 3.6 Explain financial leverage and its effect on agribusiness returns and risk			agribusiness. • Record earnings before interest and taxes (EBIT), interest, earnings before taxes (EBT) and DFL • Prepare a capital structure recommendation for one agribusiness enterprise seeking expansion financing	recommendation • Calculate the degree of financial leverage (DFL) for one agribusiness; record earnings before interest and taxes (EBIT), interest, earnings before taxes (EBT) and DFL • Prepare a capital structure recommendation for one agribusiness enterprise seeking expansion financing	
GENERAL OBJECTIVE 4.0: Know dividend policy and profit distribution in agribusiness						
8– 9	4.1 Define dividend policy 4.2 Explain the importance of dividend policy for agribusiness enterprise investor relations 4.3 Describe types of dividend policies: constant, residual, stable and no-dividend policies	• Explain dividend policy; explain importance with agribusiness investor relations examples • Describe dividend policy types with agribusiness enterprise examples for each • Explain dividend policy determinants with agribusiness	Dividend policy types guide, dividend determinants guide, cooperative surplus distribution guide, profit distribution plan template, projector.	• Identify the dividend policy of two agribusiness enterprises. • Record policy type, evidence and implications for investors • Calculate the dividend payout ratio and dividend yield for one agribusiness enterprise. • Record all steps and interpretation	Guide students to: • Identify the dividend policy of two agribusiness enterprises; record policy type, evidence and implications for investors • Calculate the dividend payout ratio and dividend yield for one agribusiness	Dividend policy identification guide, dividend ratio and yield calculation worksheet, policy evaluation template, cooperative surplus distribution template, profit distribution plan template.

	4.4 Explain the factors that determine dividend policy in agribusiness enterprises 4.5 Describe how cooperative enterprises distribute surplus income to members 4.6 Explain how to prepare a profit distribution plan for an agribusiness enterprise	examples • Explain cooperative surplus income distribution with Nigerian cooperative examples • Demonstrate profit distribution plan preparation for one agribusiness enterprise		• Evaluate whether a constant or residual dividend policy is more appropriate for one agribusiness. • Record analysis and recommendation • Prepare a cooperative surplus distribution plan for one agricultural cooperative. • Record net surplus, allocation to reserves and dividends per member • Prepare a profit distribution plan for one agribusiness enterprise. • Record net profit, retained earnings, dividends and justification	enterprise; record all steps and interpretation • Evaluate whether a constant or residual dividend policy is more appropriate for one agribusiness; record analysis and recommendation • Prepare a cooperative surplus distribution plan for one agricultural cooperative; record net surplus, allocation to reserves and dividends per member • Prepare a profit distribution plan for one agribusiness enterprise; record net profit, retained earnings, dividends and justification	
GENERAL OBJECTIVE 5.0: Know financial planning and control in agribusiness						
10– 12	4.6 Describe the financial planning process in agribusiness: objectives, forecasts and plans	• Describe financial planning process with an agribusiness case example • Demonstrate comprehensive	Financial planning process guide, comprehensive financial plan template,	• Develop a comprehensive financial plan for one agribusiness enterprise. • Record five-year projections for income,	Guide students to: • Develop a comprehensive financial plan for one agribusiness enterprise; record	Comprehensive financial plan template, budgetary control report template, balanced scorecard

	4.7 Explain how to develop a comprehensive financial plan for an agribusiness enterprise 4.8 Describe financial control systems: budgetary control, variance analysis and financial ratios 4.9 Explain how to develop a balanced score card with financial and non-financial indicators for agribusiness 4.10 Describe how to use financial planning and control to support strategic agribusiness decisions	financial plan development for one agribusiness • Describe financial control systems with agribusiness application examples • Demonstrate balanced scorecard development with financial and non-financial indicators • Explain strategic decision support through financial planning and control	financial control systems guide, balanced scorecard template, strategic decision support guide, projector.	balance sheet and cash flow • Prepare a budgetary control report for one agribusiness. • Record budget, actual, variance and corrective action for each line • Develop a balanced scorecard for one agribusiness enterprise. • Record four perspectives with two indicators and targets each • Use financial planning data to support one strategic agribusiness decision. • Record decision, financial analysis used and recommendation • Present the financial plan and balanced score card to the class/panel. • Create visual content to explain strategic targets and how financial control supports achievement	five-year projections for income, balance sheet and cash flow • Prepare a budgetary control report for one agribusiness; record budget, actual, variance and corrective action for each line • Develop a balanced scorecard for one agribusiness enterprise; record four perspectives with two indicators and targets each • Use financial planning data to support one strategic agribusiness decision; record decision, financial analysis used and recommendation Present the financial plan and balanced score card to the class/panel; explain strategic targets and how financial control supports achievement	template, strategic decision support guide, smartphones, field notebooks.
GENERAL OBJECTIVE 6.0: Understand agribusiness financial distress and restructuring						

13– 15	6.1 Define financial distress 6.2 Explain financial distress causes and warning signs in agribusiness enterprises 6.3 Describe how to use financial ratios to predict agribusiness financial distress 6.4 Explain financial restructuring options for a financially distressed agribusiness 6.5 Describe how to develop a financial recovery plan for an agribusiness enterprise 6.6 Explain the legal and regulatory framework for agribusiness insolvency in Nigeria	• Explain financial distress; explain causes and warning signs with agribusiness examples • Demonstrate financial ratio analysis for distress prediction using Altman Z-score • Describe restructuring options with agribusiness examples: debt restructuring, asset disposal and equity injection • Demonstrate financial recovery plan development for one distressed agribusiness • Explain Nigerian insolvency law and regulatory framework for agribusiness	Financial distress guide, Altman Z-score calculation guide, restructuring options guide, financial recovery plan template, Nigerian insolvency law summary, projector.	• Calculate the Altman Z-score for one agribusiness enterprise using provided financial data. • Record all steps, score and distress classification • Identify five early warning signs of financial distress in one agribusiness scenario. • Record each sign and one early intervention action • Evaluate three restructuring options for one distressed agribusiness. • Record option, advantages, disadvantages and recommended choice • Prepare a financial recovery plan for one distressed agribusiness. • Record recovery actions, timeline, resource requirements and targets • Present the financial recovery plan to the class/panel.	Guide students to: • Calculate the Altman Z-score for one agribusiness enterprise using provided financial data; record all steps, score and distress classification • Identify five early warning signs of financial distress in one agribusiness scenario; record each sign and one early intervention action • Evaluate three restructuring options for one distressed agribusiness; record option, advantages, disadvantages and recommended choice • Prepare a financial recovery plan for one distressed agribusiness; record recovery actions, timeline, resource requirements and targets	Altman Z-score calculation guide, financial distress warning signs guide, restructuring options evaluation template, financial recovery plan template, smartphones, field notebooks.

				• Identify the distress situation, recovery actions and expected financial outcomes	• Present the financial recovery plan to the class/panel; explain the distress situation, recovery actions and expected financial outcomes	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

RESOURCE AND ENVIRONMENTAL ECONOMICS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: RESOURCE AND ENVIRONMENTAL ECONOMICS	**COURSE CODE: ABM 327**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in natural resource economics, environmental valuation, sustainable resource use, land economics and the economic dimensions of agribusiness resource management in Nigeria.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the scope and concepts of resource economics in agribusiness; 2.0 Know economic analysis of land and soil resources in agribusiness; 3.0 Understand water resource economics and irrigation investment analysis; 4.0 Understand forest and biodiversity resource economics in agribusiness; 5.0 Understand environmental economics and externality management in agribusiness; 6.0 Understand sustainable resource management and green agribusiness economics.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: RESOURCE AND ENVIRONMENTAL ECONOMICS	**COURSE CODE:** ABM 327	**CONTACT HOURS:** 3 HOURS/WEEK
YEAR: I SEMESTER: II	**CREDIT UNIT:** 3	**THEORETICAL:** 1 HOUR/WEEK
	PRE-REQUISITE:	**PRACTICAL:** 2 HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in natural resource economics, environmental valuation, sustainable resource use, land economics and the economic dimensions of agribusiness resource management in Nigeria.		
GENERAL OBJECTIVE 1.0: Understand the scope and concepts of resource economics in agribusiness		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 2	1.1 Define resource economics 1.2 Explain resource economics relevance to agribusiness management in Nigeria 1.3 Describe the classification of natural resources: renewable, non-renewable and environmental resources used in agribusiness	• Discuss resource economics; explain relevance with Nigerian agribusiness land, water and forest examples • Describe natural resource classification with Nigerian agribusiness renewable, non-renewable and environmental examples • Explain sustainable yield with Nigerian	Resource economics overview guide, natural resource classification guide, sustainable yield concept guide, tragedy of the commons guide, property rights and resource allocation guide, projector.	• Classify ten natural resources used in Nigerian agribusiness by resource type. • Record each resource, type, rate of renewal, current use pressure and one sustainability concern • Identify one example of the tragedy of the commons in one Nigerian agribusiness resource sector. • Record resource, open	Guide students to: • Classify ten natural resources used in Nigerian agribusiness by resource type; record each resource, type, rate of renewal, current use pressure and one sustainability concern • Identify one example of the tragedy of the commons in one Nigerian agribusiness resource sector;	Natural resource classification guide, Nigerian agribusiness resource list, tragedy of the commons analysis guide, property rights assessment template, Nigerian agricultural resource policy research guide, projector,

	1.4 Explain the concept of sustainable yield and its application to renewable resource management in Nigerian agriculture 1.5 Describe the tragedy of the commons 1.6 Explain how tragedy of the commons affects Nigerian agribusiness resource use 1.7 Explain property rights and how their assignment affects resource allocation and conservation in Nigerian agribusiness	agricultural renewable resource management examples • Describe tragedy of the commons with Nigerian land, water and fisheries agribusiness examples • Explain property rights and resource allocation with Nigerian agribusiness land tenure and water rights examples		access problem, evidence of overuse and one recommended governance solution • Assess the property rights regime for land in one Nigerian agribusiness community. • Record land type, ownership form, access rules, conflicts observed and one improvement recommended • Research one Nigerian agricultural resource policy. • Record resource covered, policy objective, property rights established, enforcement mechanism and one effectiveness concern • Prepare a resource economics brief for one Nigerian agribusiness enterprise. • Record key resources used, classification, sustainability status and two resource management	record resource, open access problem, evidence of overuse and one recommended governance solution • Assess the property rights regime for land in one Nigerian agribusiness community; record land type, ownership form, access rules, conflicts observed and one improvement recommended • Research one Nigerian agricultural resource policy; record resource covered, policy objective, property rights established, enforcement mechanism and one effectiveness concern • Prepare a resource economics brief for one Nigerian agribusiness enterprise; record key resources used, classification,	smartphones, field notebooks.

				recommendations	sustainability status and two resource management recommendations	
GENERAL OBJECTIVE 2.0: Know economic analysis of land and soil resources in agribusiness						
3– 5	1.8 Describe land as an economic resource in agribusiness: land quality, land rent theory and the determinants of agricultural land values in Nigeria 1.9 Explain the economics of land use change: opportunity costs of converting land between agricultural, commercial and residential uses 1.10 Describe soil degradation as an economic problem: on-site and off-site costs of soil erosion, nutrient depletion and desertification in Nigeria 1.11 Explain soil conservation economics: benefit-cost analysis of soil conservation	• Describe land as agribusiness resource; explain land rent theory and land value determinants with Nigerian examples • Explain land use change economics with opportunity cost examples for Nigerian agricultural, commercial and residential conversion • Describe soil degradation as economic problem with on-site and off-site cost examples in Nigerian agribusiness • Demonstrate soil conservation benefit-cost analysis for one Nigerian agribusiness erosion	Land rent theory and land value guide, land use change opportunity cost guide, soil degradation cost guide, soil conservation benefit-cost analysis guide, Nigerian land tenure systems guide, projector.	• Assess the economic value of one hectare of agricultural land in one Nigerian area. • Record land quality, soil type, water access, distance to market, comparable prices and estimated land value with justification • Calculate the opportunity cost of converting five hectares of agricultural land to non-agricultural use. • Record current agricultural net revenue, alternative use revenue, conversion cost and net opportunity cost • Estimate the on-site and off-site economic cost of soil erosion on one Nigerian agribusiness farm. • Record erosion rate,	Guide students to: • Assess the economic value of one hectare of agricultural land in one Nigerian area; record land quality, soil type, water access, distance to market, comparable prices and estimated land value with justification • Calculate the opportunity cost of converting five hectares of agricultural land to non-agricultural use; record current agricultural net revenue, alternative use revenue, conversion cost and net opportunity cost • Estimate the on-site and off-site economic cost of soil erosion on one	Land value assessment guide, land use change opportunity cost worksheet, soil erosion cost estimation guide, soil conservation CBA worksheet, Nigerian land tenure assessment guide, projector, smartphones, field notebooks.

	investments and erosion control technologies for Nigerian agribusiness 1.12 Describe the economics of land tenure systems in Nigeria and their effects on agribusiness investment and productivity	control investment • Describe Nigerian land tenure economics with investment and productivity effect examples		yield loss per hectare, input cost increase and one off-site downstream damage cost • Conduct a benefit-cost analysis of one soil conservation technology for one Nigerian farm. • Record technology cost, implementation timeline, yield improvement, cost savings, benefit-cost ratio and recommendation • Assess the land tenure system for one Nigerian agribusiness community. • Record tenure type, investment incentive created, productivity effect evidence and one land policy recommendation	Nigerian agribusiness farm; record erosion rate, yield loss per hectare, input cost increase and one off-site downstream damage cost • Conduct a benefit-cost analysis of one soil conservation technology for one Nigerian farm; record technology cost, implementation timeline, yield improvement, cost savings, benefit-cost ratio and recommendation • Assess the land tenure system for one Nigerian agribusiness community; record tenure type, investment incentive created, productivity effect evidence and one land policy recommendation	
GENERAL OBJECTIVE 3.0: Understand water resource economics and irrigation investment analysis						
6– 7	2.1 Describe the economic	•Describe economic	Water as an	• Calculate the full	Guide students to:	Water supply

	value of water in Nigerian agribusiness: water as an economic good, water pricing and the full economic cost of water supply 2.2 Explain water scarcity and its economic consequences for agribusiness in Nigeria: rain-fed versus irrigated production economics 2.3 Describe how to conduct a benefit-cost analysis of one irrigation investment for a Nigerian agribusiness enterprise 2.4 Explain water rights and allocation mechanisms in Nigeria and their effect on agribusiness access to irrigation water 2.5 Describe how to apply water use efficiency economics in agribusiness: marginal value of water and optimal water allocation	value of water; explain water pricing and full economic cost with Nigerian agribusiness examples • Explain water scarcity economic consequences; compare rain-fed and irrigated production economics in Nigeria • Demonstrate irrigation investment CBA for one Nigerian agribusiness enterprise • Explain Nigerian water rights and allocation mechanisms with agribusiness access examples • Demonstrate marginal value of water and optimal water allocation for one agribusiness irrigation decision	economic good guide, water scarcity and agribusiness economics guide, irrigation investment CBA guide, Nigerian water rights and allocation guide, marginal value of water guide, projector.	economic cost of water supply for one Nigerian agribusiness operation. • Record water source, extraction or purchase cost, conveyance cost, scarcity cost and total full economic cost per cubic metre • Compare the economics of rain-fed and irrigated production for one Nigerian crop. • Record yield, costs and net revenue for each system and identify the break-even water price at which irrigation becomes profitable • Conduct a benefit-cost analysis for a small-scale irrigation investment on one Nigerian farm. • Record investment cost, incremental yield, incremental revenue, costs saved, net present value (NPV) and benefit-cost ratio over five	• Calculate the full economic cost of water supply for one Nigerian agribusiness operation; record water source, extraction or purchase cost, conveyance cost, scarcity cost and total full economic cost per cubic metre • Compare the economics of rain-fed and irrigated production for one Nigerian crop; record yield, costs and net revenue for each system and identify the break-even water price at which irrigation becomes profitable • Conduct a benefit-cost analysis for a small-scale irrigation investment on one Nigerian farm; record investment cost, incremental yield, incremental	cost calculation worksheet, rain-fed and irrigated production comparison template, irrigation investment CBA worksheet, Nigerian water rights research guide, marginal value product of water calculation guide, projector, smartphones,

				years • Research water allocation rules for one Nigerian river basin or dam catchment. • Record water rights system, allocation priority, agribusiness entitlement and one water access challenge • Calculate the marginal value product of irrigation water for one Nigerian crop. • Record water application rate, marginal crop yield, crop price and marginal value product at three water use levels	revenue, costs saved, net present value (NPV) and benefit-cost ratio over five years • Research water allocation rules for one Nigerian river basin or dam catchment; record water rights system, allocation priority, agribusiness entitlement and one water access challenge • Calculate the marginal value product of irrigation water for one Nigerian crop; record water application rate, marginal crop yield, crop price and marginal value product at three water use levels	
GENERAL OBJECTIVE 4.0: Understand forest and biodiversity resource economics in agribusiness						
8– 10	4.1 Describe the economic value of forests in Nigerian agribusiness: timber, non-timber	• Describe economic value of Nigerian forests with timber, NTFP, carbon,	Forest economic value guide, deforestation economics guide,	• Estimate the total economic value of one Nigerian forest area near a farming	Guide students to: • Estimate the total economic value of one Nigerian forest	Total economic valuation framework guide, Nigerian

	products (NTFP), carbon sequestration, watershed services and biodiversity 4.2 Explain the economics of deforestation in Nigeria: drivers, costs and the trade-off between agricultural land expansion and forest conservation 4.3 Describe how to conduct total economic valuation of one Nigerian forest resource: use values, option values and non-use values 4.4 Explain payment for ecosystem services as an economic mechanism for forest conservation in Nigerian agribusiness landscapes 4.5 Describe the economics of biodiversity conservation in Nigerian agribusiness: pollination services, genetic resources and the cost of biodiversity loss	watershed and biodiversity examples • Explain deforestation economics with Nigerian driver, cost and agricultural expansion trade-off examples • Demonstrate total economic valuation of one Nigerian forest resource using all value categories • Explain payment for ecosystem services mechanism with Nigerian agribusiness landscape examples • Describe biodiversity conservation economics with pollination, genetic resource and loss cost examples	total economic valuation framework, payment for ecosystem services guide, biodiversity conservation economics guide, projector.	community. • Record timber value, NTFP value, carbon sequestration value, watershed service value and existence value with method used for each • Analyse the economics of one Nigerian deforestation case. • Record driver, area deforested, agricultural revenue gained, forest value lost, net economic effect and one policy recommendation • Apply the total economic valuation framework to one Nigerian natural resource. • Record resource, all value categories, valuation method applied, estimated value per category and total economic value • Research one Nigerian payment for ecosystem services scheme. • Record ecosystem service, provider,	area near a farming community; record timber value, NTFP value, carbon sequestration value, watershed service value and existence value with method used for each • Analyse the economics of one Nigerian deforestation case; record driver, area deforested, agricultural revenue gained, forest value lost, net economic effect and one policy recommendation • Apply the total economic valuation framework to one Nigerian natural resource; record resource, all value categories, valuation method applied, estimated value per category and total economic value • Research one Nigerian payment for ecosystem	deforestation case studies, PES research guide, pollination service value calculation guide, forest economic value data, projector, smartphones, field notebooks.

				buyer, payment amount, conditionality and conservation outcome • Calculate the economic value of pollination services for one Nigerian agricultural crop. • Record crop, pollinator dependence ratio, production value and pollination service value estimated	services scheme; record ecosystem service, provider, buyer, payment amount, conditionality and conservation outcome • Calculate the economic value of pollination services for one Nigerian agricultural crop; record crop, pollinator dependence ratio, production value and pollination service value estimated	
GENERAL OBJECTIVE 5.0: Understand environmental economics and externality management in agribusiness						
11– 12	5.1 Define externalities 5.2 Distinguish between negative and positive externalities in agribusiness with Nigerian examples 5.3 Explain the Coase theorem and how private bargaining can resolve agribusiness externality problems in Nigerian rural communities	• Explain externalities; describe negative and positive externalities with Nigerian agribusiness examples • Explain Coase theorem; describe private bargaining resolution with Nigerian agribusiness	Externalities in agribusiness guide, Coase theorem guide, government externality instruments guide, agribusiness pollution damage cost estimation guide, EIA and CBA integration	• Identify two negative externalities and one positive externality from one Nigerian agribusiness operation. • Record externality type, affected party, economic damage or benefit estimated and one instrument to correct each negative externality • Apply the Coase	Guide students to: • Identify two negative externalities and one positive externality from one Nigerian agribusiness operation; record externality type, affected party, economic damage or benefit estimated and one instrument	Externality identification guide, Coase theorem application guide, pollution reduction instrument design guide, environmental damage cost estimation guide, social benefit-

	5.4 Describe government instruments for managing negative agribusiness externalities: environmental taxes, standards and tradeable permits 5.5 Explain the economics of agribusiness pollution: water pollution, soil contamination and greenhouse gas emissions in Nigeria and how to estimate damage costs, carbon credit, etc. 5.6 Describe environmental impact assessment as an economic tool and how benefit-cost analysis is integrated into Nigerian EIA for agribusiness projects 5.7 Describe environmental impact assessment; Life Cycle Inventory (LCI) and Life Cycle Analysis (LCA)	community example • Describe government externality instruments with Nigerian agribusiness environmental tax, standard and permit examples • Explain agribusiness pollution economics; demonstrate damage cost estimation for one Nigerian agribusiness pollution case • Describe EIA as economic tool; explain CBA integration in Nigerian agribusiness EIA with one project example • 5.5 Describe environmental impact assessment; life cycle inventory (LCI) and life cycle analysis (LCA)	guide, projector.	theorem to one agribusiness externality dispute in a Nigerian community. • Record parties, externality, property rights assignment, negotiated solution and one condition that could prevent resolution • Design a pollution reduction instrument for one Nigerian agribusiness negative externality. • Record externality, instrument chosen, target level, enforcement mechanism and estimated compliance cost • Estimate the economic damage cost of one agribusiness-related water pollution incident in Nigeria. • Record pollutant, affected water users, quantity of damage, economic valuation method and total damage cost estimated	to correct each negative externality • Apply the Coase theorem to one agribusiness externality dispute in a Nigerian community; record parties, externality, property rights assignment, negotiated solution and one condition that could prevent resolution • Design a pollution reduction instrument for one Nigerian agribusiness negative externality; record externality, instrument chosen, target level, enforcement mechanism and estimated compliance cost • Estimate the economic damage cost of one agribusiness-related water pollution incident in Nigeria; record pollutant,	cost analysis worksheet, projector, smartphones, field notebooks.

				• Conduct a simplified life cycle analysis (LCA) and benefit-cost analysis of one Nigerian agribusiness project with environmental impacts. • Record project costs, private benefits, environmental costs and benefits, net social benefit and recommendation	affected water users, quantity of damage, economic valuation method and total damage cost estimated • Conduct a simplified life cycle analysis (LCA) and benefit-cost analysis of one Nigerian agribusiness project with environmental impacts; record project costs, private benefits, environmental costs and benefits, net social benefit and recommendation	
GENERAL OBJECTIVE 6.0: Understand sustainable resource management and green agribusiness economics						
13– 15	6.1 Describe the concept of sustainable development and its application to agribusiness resource management in Nigeria 6.2 Explain natural capital accounting: how to measure and value natural capital stocks and flow using causal	• Describe sustainable development concept with Nigerian agribusiness resource management application examples • Explain natural capital accounting with agribusiness stock, flow and	Sustainable development and agribusiness resource management guide, natural capital accounting guide, circular economy in agribusiness guide, green	• Assess the sustainable development performance of one Nigerian agribusiness enterprise. • Record economic, social and environmental indicators (using causal loop diagram for system thinking), current performance,	Guide students to: • Assess the sustainable development performance of one Nigerian agribusiness enterprise; record economic, social and environmental indicators (using causal loop diagram	Sustainable development assessment template, natural capital accounting guide, circular economy intervention design guide, causal loop diagram, green

	loop diagram for system thinking in agribusiness systems 6.3 Describe the economics of circular economy approaches in agribusiness: waste valorisation, by-product use and resource efficiency 6.4 Explain green agribusiness certification and standards: their economic costs, market benefits and adoption incentives for Nigerian agribusiness 6.5 Describe how to develop a resource use efficiency plan for one Nigerian agribusiness enterprise integrating economic and environmental objectives	value using causal loop diagram for system thinking in agribusiness • Describe circular economy in agribusiness with waste valorisation and resource efficiency examples • Explain green agribusiness certification with Rainforest Alliance, organic and Global GAP cost and benefit examples • Demonstrate resource use efficiency plan development for one Nigerian agribusiness enterprise	agribusiness certification guide, resource use efficiency plan template, projector.	benchmark and two sustainability improvement recommendations • Estimate the natural capital stock value for one key resource used by one Nigerian agribusiness. • Record resource, quantity, quality, unit economic value, total stock value and annual depletion rate • Design one circular economy intervention for one Nigerian agribusiness. • Record waste stream targeted, valorisation method, estimated revenue or cost saving, implementation cost and payback period • Research one green agribusiness certification relevant to one Nigerian enterprise. • Record certification name, requirements, certification cost, market price premium and break-even	for system thinking), current performance, benchmark and two sustainability improvement recommendations • Estimate the natural capital stock value for one key resource used by one Nigerian agribusiness; record resource, quantity, quality, unit economic value, total stock value and annual depletion rate • Design one circular economy intervention for one Nigerian agribusiness; record waste stream targeted, valorisation method, estimated revenue or cost saving, implementation cost and payback period • Research one green agribusiness certification relevant	agribusiness certification research guide, resource use efficiency plan template, projector, smartphones, field notebooks.

				adoption volume • Develop a resource use efficiency plan for one Nigerian agribusiness enterprise. • Record each key resource, current use quantity, efficiency target, efficiency measure to adopt, estimated saving and monitoring indicator	to one Nigerian enterprise; record certification name, requirements, certification cost, market price premium and break-even adoption volume • Develop a resource use efficiency plan for one Nigerian agribusiness enterprise; record each key resource, current use quantity, efficiency target, efficiency measure to adopt, estimated saving and monitoring indicator	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

GENDER AND SOCIAL INCLUSION IN AGRIBUSINESS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: GENDER AND SOCIAL INCLUSION IN AGRIBUSINESS	**COURSE CODE: ABM 328**	**CONTACT HOURS: 2 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 2**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 1 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills to apply gender and social inclusion principles in agribusiness enterprise development and value chain management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand gender concepts and gender inequality in Nigerian agribusiness; 2.0 Know gender analysis in agribusiness value chains; 3.0 Understand inclusive agribusiness enterprise design; 4.0 Understand women and youth access to agribusiness finance; 5.0 Know gender-responsive agribusiness programme design; 6.0 Know social inclusion in cooperative and enterprise development.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: GENDER AND SOCIAL INCLUSION IN AGRIBUSINESS	**COURSE CODE: ABM 328**	**CONTACT HOURS: 2 HOURS/WEEK**
YEAR: I SEMESTER: II	**CREDIT UNIT: 2**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 1 HOUR/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills to apply gender and social inclusion principles in agribusiness enterprise development and value chain management.		
GENERAL OBJECTIVE 1.0: Understand gender concepts and gender inequality in Nigerian agribusiness		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 2	1.1 Define gender and its concepts 1.2 Describe gender roles in Nigerian agricultural value chains 1.3 Explain how gender inequality affects women's access to land, inputs, credit and markets in agribusiness 1.4 Describe the economic cost of gender inequality in Nigerian	• Explain gender its concepts; describe gender roles in Nigerian agricultural value chains • Explain women's access barriers with Nigerian agribusiness evidence • Explain economic cost of gender inequality with Nigerian agribusiness data	Gender roles in agribusiness guide, women's access barriers data, economic cost of gender inequality data, agricultural labour analysis, projector.	• Survey five agribusiness operators on gender roles in enterprise operations. • Record findings for men and women separately • Identify three gender inequalities affecting women in one local agribusiness value chain. • Record each inequality and one recommended action	Guide students to: • Survey five agribusiness operators on gender roles in enterprise operations; record findings for men and women separately • Identify three gender inequalities affecting women in one local agribusiness value chain; record each inequality and one recommended action • Prepare a gender	Agribusiness gender survey form, gender inequality identification guide, gender situation analysis template, interview guide, smartphones, field notebooks.

	agribusiness 1.5 Explain the gender dimensions of agricultural labour: unpaid work, decision-making and income control 1.6 Describe how cultural norms influence gender roles in Nigerian agribusiness enterprise	• Explain agricultural labour gender dimensions with local examples • Explain cultural influence on gender roles in agribusiness with community examples		• Prepare a gender situation analysis for one agribusiness sector. • Record women's access to land, inputs, credit and markets • Interview one female agribusiness operator. • Record enterprise type, challenges faced, income level and one recommended support • Present gender situation analysis findings to the class. • Identify two key gender gaps and recommended interventions	situation analysis for one agribusiness sector; record women's access to land, inputs, credit and markets • Interview one female agribusiness operator; record enterprise type, challenges faced, income level and one recommended support • Present gender situation analysis findings to the class. • Identify two key gender gaps and recommended interventions	
GENERAL OBJECTIVE 2.0: Know gender analysis in agribusiness value chains						
3– 4	1.7 Define gender analysis 1.8 Explain gender analysis importance in agribusiness value chain development 1.9 Describe the Harvard Analytical Framework and its application in agribusiness value	• Explain gender analysis; explain importance in value chain development • Demonstrate Harvard Analytical Framework application in one agribusiness value chain • Demonstrate sex-	Gender analysis frameworks guide, Harvard Analytical Framework template, Sex-disaggregated data collection form, Gender gap identification guide, Projector.	• Apply the Harvard Analytical Framework to one agribusiness value chain. • Record activities, resources, constraints and opportunities by gender • Collect sex-disaggregated data from ten value chain	Guide students to: • Apply the Harvard Analytical Framework to one agribusiness value chain; record activities, resources, constraints and opportunities by gender • Collect sex-disaggregated data from ten value chain	Harvard Analytical Framework template, sex-disaggregated data collection form, gender gap identification guide, gender-responsive intervention design template, Smartphones, field

	chain analysis 1.10 Explain how to collect sex-disaggregated data in agribusiness value chain assessments 1.11 Describe how to identify gender gaps and opportunities in an agribusiness value chain 1.12 Explain how gender analysis findings guide value chain intervention design	disaggregated data collection for one value chain • Demonstrate gender gap and opportunity identification in one value chain • Explain how gender analysis guides intervention design with examples		actors. • Record data for men and women separately and calculate participation gap • Identify three gender gaps in the agribusiness value chain. • Record each gap, effect on women and one recommended intervention • Design one gender-responsive value chain intervention. • Record objective, activities, target group and expected gender outcome • Present gender analysis findings to the class. • Identify key gender gaps and two value chain development recommendations	actors; record data for men and women separately and calculate participation gap • Identify three gender gaps in the agribusiness value chain; record each gap, effect on women and one recommended intervention • Design one gender-responsive value chain intervention; record objective, activities, target group and expected gender outcome • Present gender analysis findings to the class. • Identifyw key gender gaps and two value chain development recommendations	notebooks.
GENERAL OBJECTIVE 3.0: Understand inclusive agribusiness enterprise design						
5– 6	3.1 Define inclusive agribusiness 3.2 Explain inclusive agribusiness importance for	• Explain inclusive agribusiness; explain importance with Nigerian enterprise	Inclusive agribusiness enterprise design guide, accessibility principles,	• Complete a gendered Business Model Canvas for one agribusiness enterprise.	Guide students to: • Complete a gendered Business Model Canvas for one agribusiness	Gendered Business Model Canvas template, enterprise accessibility

	sustainable enterprise development 3.3 Describe how to design an agribusiness enterprise that is accessible to women and youth 3.4 Explain how to apply the Business Model Canvas with a gender inclusion lens 3.5 Describe how to identify and remove barriers to inclusion in agribusiness enterprise design 3.6 Explain how inclusive enterprise design improves agribusiness social and financial performance	examples • Explain inclusive enterprise design principles with women and youth accessibility examples • Demonstrate gendered Business Model Canvas for one agribusiness enterprise • Explain barrier identification and removal with agribusiness design examples • Explain inclusive enterprise social and financial performance evidence	gendered Business Model Canvas, barrier identification guide, inclusive enterprise performance evidence, projector.	• Record gender-specific elements in each building block • Identify three accessibility barriers for women or youth in one agribusiness enterprise. • Record barrier, effect and design solution • Redesign one agribusiness enterprise element to make it more inclusive. • Record original design, barrier, new design and expected inclusion outcome • Assess the inclusiveness of one local agribusiness enterprise. • Record who is included and excluded and two recommendations • Present the inclusive enterprise design to the class. • Identify the enterprise, barriers addressed and expected gender and social outcomes	enterprise; record gender-specific elements in each building block • Identify three accessibility barriers for women or youth in one agribusiness enterprise; record barrier, effect and design solution • Redesign one agribusiness enterprise element to make it more inclusive; record original design, barrier, new design and expected inclusion outcome • Assess the inclusiveness of one local agribusiness enterprise; record who is included and excluded and two recommendations • Present the inclusive enterprise design to the class. • Identify the enterprise, barriers addressed and expected gender and social outcomes	barrier identification guide, enterprise inclusiveness assessment tool, inclusive enterprise redesign template, smartphones, field notebooks.

GENERAL OBJECTIVE 4.0: Understand women and youth access to agribusiness finance						
7– 8	4.1 Describe the barriers facing women and youth in accessing agribusiness finance in Nigeria 4.2 Explain government and donor programmes targeting women and youth agribusiness finance 4.3 Describe how savings groups and cooperatives improve women's access to agribusiness credit 4.4 Explain how agrifintech platforms are improving women's financial inclusion in Nigerian agribusiness 4.5 Describe how to design a financial access strategy for women-led agribusiness	• Describe women and youth finance access barriers with Nigerian agribusiness evidence • Describe government and donor programmes with eligibility, funding and application examples • Explain savings group and cooperative role in women's credit access • Explain agrifintech platforms improving women's financial inclusion with Nigerian examples • Demonstrate financial access strategy design for women-led agribusiness	Women and youth finance access barriers guide, government and donor programme descriptions, savings group and cooperative guide, agrifintech platforms for women guide, financial access strategy template, projector.	• Identify two government or donor programmes targeting women agribusiness finance. • Record eligibility, amount, application process and contact • Design a savings group model for ten women agribusiness operators. • Record contribution, frequency, payout, governance and one enterprise activity • Research one agrifintech platform providing credit to women farmers. • Record platform, services, interest rate, eligibility and how to access • Prepare a financial access strategy for one women-led agribusiness enterprise. • Record finance sources, application steps and expected funding • Present the financial	Guide students to: • Identify two government or donor programmes targeting women agribusiness finance; record eligibility, amount, application process and contact • Design a savings group model for ten women agribusiness operators; record contribution, frequency, payout, governance and one enterprise activity • Research one agrifintech platform providing credit to women farmers; record platform, services, interest rate, eligibility and how to access • Prepare a financial access strategy for one women-led agribusiness enterprise; record finance sources, application steps and expected funding • Present the financial access strategy to the	Government and donor programme research guide, savings group design template, agrifintech research guide, financial access strategy template, smartphones, field notebooks.

	enterprises			access strategy to the class. • Identify the enterprise, financing gap, sources identified and application plan	class. • Identify the enterprise, financing gap, sources identified and application plan	
GENERAL OBJECTIVE 5.0: Know gender-responsive agribusiness programme design						
9– 11	5.1 Define gender-responsive programming 5.2 Explain how gender-responsive programming differs from gender-blind approaches in agribusiness 5.3 Describe how to incorporate gender objectives and indicators into an agribusiness programme log frame 5.4 Explain women's empowerment approaches used in agribusiness development programmes 5.5 Describe how to monitor gender outcomes in an	• Explain gender-responsive programming; compare with gender-blind approach using agribusiness examples • Demonstrate gender objective and indicator incorporation into an agribusiness log frame • Describe women's empowerment approaches with Nigerian agribusiness programme examples • Demonstrate gender outcome monitoring for one agribusiness programme	Gender-responsive programming guide, Gendered logframe template, Women's empowerment approaches guide, Gender monitoring framework template, Sex-disaggregated data analysis guide, Projector.	• Review one agribusiness programme and assess its gender-responsiveness. • Record strengths, gaps and two improvement recommendations • Add gender objectives and indicators to one agribusiness log frame. • Record gender objective, indicator, target and data source • Design one women's empowerment activity for an agribusiness programme. • Record objective, activities, target participants and expected outcome • Develop a gender monitoring framework for one agribusiness programme.	Guide students to: • Review one agribusiness programme and assess its gender-responsiveness; record strengths, gaps and two improvement recommendations • Add gender objectives and indicators to one agribusiness logframe; record gender objective, indicator, target and data source • Design one women's empowerment activity for an agribusiness programme; record objective, activities, target participants and expected outcome • Develop a gender monitoring framework for one agribusiness programme; record	Agribusiness programme gender assessment tool, gendered logframe template, women's empowerment activity design template, gender monitoring framework template, smartphones, field notebooks.

	agribusiness programme 5.6 Explain how to use gender disaggregated data to improve agribusiness programme performance	• Explain how sex-disaggregated data guides programme improvement with examples		• Record gender indicators, targets, data source and measurement frequency • Present the gender-responsive programme design to the class. • Identify gender objectives, monitoring approach and expected gender outcomes	gender indicators, targets, data source and measurement frequency • Present the gender-responsive programme design to the class. • Identify gender objectives, monitoring approach and expected gender outcomes	
GENERAL OBJECTIVE 6.0: Know social inclusion in cooperative and enterprise development						
12– 15	6.1 Describe social exclusion and the groups most excluded in Nigerian agribusiness: women, youth, persons with disabilities and the elderly 6.2 Explain how to design inclusive cooperative structures that enable participation of excluded groups 6.3 Describe affirmative action provisions in	• Describe social exclusion with Nigerian agribusiness examples for each excluded group • Explain inclusive cooperative structure design with participation mechanisms for excluded groups • Describe affirmative action provisions with cooperative governance examples • Explain inclusive enterprise	Social exclusion in agribusiness guide, inclusive cooperative design guide, affirmative action provisions examples, inclusive enterprise economic outcomes evidence, social inclusion measurement guide, projector.	• Identify three excluded groups in one local agribusiness cooperative or enterprise. • Record group, exclusion barrier and one inclusion mechanism • Design an inclusive agribusiness cooperative structure. • Record membership rules, leadership quotas, meeting accessibility and financial inclusion features • Prepare a social inclusion policy for	Guide students to: • Identify three excluded groups in one local agribusiness cooperative or enterprise; record group, exclusion barrier and one inclusion mechanism • Design an inclusive agribusiness cooperative structure; record membership rules, leadership quotas, meeting accessibility and financial inclusion features • Prepare a social inclusion policy for	Excluded group identification guide, inclusive cooperative design template, social inclusion policy template, social inclusion outcome measurement form, smartphones, field notebooks.

	agribusiness cooperative governance for women and youth 6.4 Explain how inclusive enterprise development improves economic outcomes for excluded groups 6.5 Describe how to measure and report social inclusion outcomes in agribusiness enterprises	economic outcomes with Nigerian evidence • Explain social inclusion outcome measurement and reporting		one agribusiness enterprise. • Record groups targeted, inclusion actions and monitoring indicators • Measure social inclusion outcomes of one agribusiness programme. • Record participation rate by group, income change and one outcome achieved • Present the inclusive cooperative design to the class • Identify inclusion mechanisms, governance provisions and expected social outcomes	one agribusiness enterprise; record groups targeted, inclusion actions and monitoring indicators • Measure social inclusion outcomes of one agribusiness programme; record participation rate by group, income change and one outcome achieved • Present the inclusive cooperative design to the class. • Identify inclusion mechanisms, governance provisions and expected social outcomes	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

YEAR II – SEMESTER I

STRATEGIC AGRIBUSINESS MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: STRATEGIC AGRIBUSINESS MANAGEMENT	**COURSE CODE: ABM 411**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in strategic management for agribusiness enterprises operating in competitive and dynamic environments, including agribusiness human capital and workforce management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand strategic management concepts and frameworks in agribusiness; 2.0 Understand external environment analysis for agribusiness strategy; 3.0 Know internal analysis and competitive advantage in agribusiness; 4.0 Know strategic options generation and selection in agribusiness ; 5.0 Understand strategy implementation in agribusiness enterprises ; 6.0 Know strategic evaluation techniques and control in agribusiness; 7.0 Know human capital management in agribusiness enterprises.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: STRATEGIC AGRIBUSINESS MANAGEMENT	**COURSE CODE: ABM 411**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in strategic management for agribusiness enterprises operating in competitive and dynamic environments, including agribusiness human capital and workforce management.		
GENERAL OBJECTIVE 1.0: Understand strategic management concepts and frameworks in agribusiness		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1	1.1 Define strategic management 1.2 Explain the importance of strategic management for agribusiness competitiveness 1.3 Describe the strategic management process: analysis, formulation, implementation and evaluation 1.4 Explain the levels of strategy in agribusiness: corporate, business	• Explain strategic management; explain importance with Nigerian agribusiness competitiveness examples • Describe strategic management process with an agribusiness case example for each stage • Explain strategy levels with Nigerian agribusiness	Strategic management process diagram, Porter's Five Forces template, BCG Matrix, Ansoff Matrix, competitive advantage guide, projector.	• Apply Porter's Five Forces to one Nigerian agribusiness sector. • Record each force, its strength and one strategic implication • Complete a BCG Matrix for one agribusiness with four products. • Record market share, growth rate and strategic recommendation for	Guide students to: • Apply Porter's Five Forces to one Nigerian agribusiness sector; record each force, its strength and one strategic implication • Complete a BCG Matrix for one agribusiness with four products; record market share, growth rate and strategic recommendation for	Porter's Five Forces template, BCG Matrix template, Ansoff Matrix template, competitive advantage assessment guide, field notebooks, smartphones.

	unit and functional strategies 1.5 Describe strategic management frameworks: Porter's Five Forces, Boston Consulting Group (BCG) Matrix and Ansoff Matrix 1.6 Explain how strategic management creates sustainable competitive advantage in agribusiness	examples at each level • Describe frameworks with agribusiness application examples for each • Explain competitive advantage creation with Nigerian agribusiness case studies		each • Apply the Ansoff Matrix to one agribusiness enterprise. • Record four strategic options and assess feasibility of each • Identify the competitive advantage of one Nigerian agribusiness enterprise. • Record advantage type, source and sustainability • Present the Porter's Five Forces analysis to the class. • Identify the most critical force and two strategic responses recommended	each • Apply the Ansoff Matrix to one agribusiness enterprise; record four strategic options and assess feasibility of each • Identify the competitive advantage of one Nigerian agribusiness enterprise; record advantage type, source and sustainability • Present the Porter's Five Forces analysis to the class. • Identify the most critical force and two strategic responses recommended	
GENERAL OBJECTIVE 2.0: Understand external environment analysis for agribusiness strategy						
2– 3	1.7 Describe how to conduct a PESTLE analysis for agribusiness strategic planning 1.8 Explain how to	• Demonstrate PESTLE analysis for one Nigerian agribusiness sector • Demonstrate Porter's Five Forces analysis	PESTLE analysis template, Porter's Five Forces template, market trend analysis guide, EFE matrix	• Conduct a PESTLE analysis for one agribusiness sector; record one key factor per category with strategic implication	Guide students to: • Conduct a PESTLE analysis for one agribusiness sector; record one key factor per category with	PESTLE analysis template, Porter's Five Forces template, market trend analysis guide, EFE matrix

	analyse industry structure and competitive dynamics in agribusiness 1.9 Describe market trend analysis and its role in agribusiness strategy formulation 1.10 Explain how to identify strategic threats and opportunities from the external environment 1.11 Describe how to develop an External Factor Evaluation (EFE) matrix for agribusiness	for one agribusiness industry • Demonstrate market trend analysis for one Nigerian agribusiness commodity • Explain strategic threat and opportunity identification from external factors • Demonstrate EFE matrix preparation for one agribusiness enterprise	template, projector.	• Conduct a Porter's Five Forces analysis; record each force, its current strength and trend • Conduct a market trend analysis for one commodity. • Record three key trends and their strategic implications • Prepare an EFE matrix. • Record key external factors, weights, ratings and weighted scores • Synthesise external analyses into opportunities and threats summary. • Record top three opportunities and top three threats	strategic implication • Conduct a Porter's Five Forces analysis; record each force, its current strength and trend • Conduct a market trend analysis for one commodity; record three key trends and their strategic implications • Prepare an EFE matrix; record key external factors, weights, ratings and weighted scores • Synthesise external analyses into opportunities and threats summary; record top three opportunities and top three threats	template, field notebooks, smartphones.
GENERAL OBJECTIVE 3.0: Know internal analysis and competitive advantage in agribusiness						
4– 5	1.12 Describe how to conduct a value chain analysis for internal agribusiness capability assessment 1.13 Explain the resource-based view and core	• Demonstrate value chain analysis for internal agribusiness capability assessment • Explain RBV and core competencies with Nigerian	Value chain analysis template, RBV and core competency guide, IFE matrix template, integrated SWOT template,	• Conduct a value chain analysis for one agribusiness enterprise. • Record each activity, cost and value added • Prepare an IFE	Guide students to: • Conduct a value chain analysis for one agribusiness enterprise; record each activity, cost and value added	Value chain analysis template, IFE matrix template, integrated SWOT template, field notebooks, smartphones.

	competencies of an agribusiness enterprise 1.14 Describe how to prepare an Internal Factor Evaluation (IFE) matrix for an agribusiness enterprise 1.15 Describe how to develop an integrated SWOT analysis from internal and external analyses	agribusiness examples • Demonstrate IFE matrix preparation for one agribusiness enterprise • Demonstrate integrated SWOT development from internal and external analyses	projector.	matrix. • Record key internal factors, weights, ratings and weighted scores • Develop an integrated SWOT combining IFE and EFE analyses. • Record two items per quadrant with brief explanation • Identify the core competencies of one agribusiness enterprise. • Record each competency and how it creates value	• Prepare an IFE matrix; record key internal factors, weights, ratings and weighted scores • Develop an integrated SWOT combining IFE and EFE analyses; record two items per quadrant with brief explanation • Identify the core competencies of one agribusiness enterprise; record each competency and how it creates value	
GENERAL OBJECTIVE 4.0: Know strategic options generation and selection in agribusiness						
6– 7	4.1 Describe generic competitive strategies for agribusiness: cost leadership, differentiation and focus 4.2 Explain growth strategies: market penetration, market development, product development and diversification 4.3 Describe how to use	• Describe generic strategies with Nigerian agribusiness examples for each • Describe growth strategies with Ansoff Matrix and Nigerian agribusiness examples • Demonstrate TOWS matrix preparation	Generic strategies guide, Ansoff Matrix, TOWS matrix template, strategic evaluation criteria guide, strategic decision matrix template, projector.	• Identify the generic competitive strategy of two agribusiness enterprises. • Record strategy type, evidence and competitive implications • Generate four strategic options using the TOWS matrix from the integrated SWOT.	Guide students to: • Identify the generic competitive strategy of two agribusiness enterprises; record strategy type, evidence and competitive implications • Generate four strategic options using the TOWS matrix from the	Generic strategies guide, TOWS matrix template, strategic option evaluation template, strategic decision matrix template, field notebooks, smartphones.

	the TOWS matrix to generate strategic options from SWOT analysis 4.4 Explain strategic option evaluation criteria: suitability, acceptability and feasibility 4.5 Describe how to select the optimal strategy using a decision matrix for agribusiness	from a completed SWOT analysis • Explain evaluation criteria with agribusiness strategic option examples • Demonstrate decision matrix preparation and strategy selection for one agribusiness		• Record each option and SWOT factors addressed • Evaluate three strategic options using suitability, acceptability and feasibility. • Record scores and justification for each criterion • Select the optimal strategy using a decision matrix; record criteria weights, scores and final weighted score for each option • Present the strategic option analysis and recommendation to the class. • Identify rationale and expected competitive outcome	integrated SWOT; record each option and SWOT factors addressed • Evaluate three strategic options using suitability, acceptability and feasibility; record scores and justification for each criterion • Select the optimal strategy using a decision matrix; record criteria weights, scores and final weighted score for each option • Present the strategic option analysis and recommendation to the class. • Identify rationale and expected competitive outcome	
GENERAL OBJECTIVE 5.0: Understand strategy implementation in agribusiness enterprises						
8– 10	5.1 Describe the strategy implementation process: structure, systems, people and culture	• Describe strategy implementation process with an agribusiness transformation	Strategy implementation guide, implementation plan template,	• Develop a strategy implementation plan for one agribusiness. • Record activities, milestones,	Guide students to: • Develop a strategy implementation plan for one agribusiness; record activities,	Strategy implementation plan template, organisational culture assessment

	5.2 Explain how to develop an implementation plan with milestones and resource allocations 5.3 Describe how organisational culture affects strategy implementation in agribusiness 5.4 Explain change management strategies for implementing a new agribusiness strategy	example • Demonstrate implementation plan development with milestones and resource allocation • Explain organisational culture effects on strategy implementation with agribusiness examples • Explain change management strategies with Nigerian agribusiness case studies	organisational culture guide, change management guide, HR alignment guide, projector.	resources, timeline and responsible persons • Assess the organisational culture fit with the proposed strategy. • Record culture type, alignment level and gaps identified • Develop a change management plan for one agribusiness strategy. • Record stakeholders, communication, training and resistance management • Present the implementation plan to the class • Identify milestones, resource requirements and expected strategic outcomes	milestones, resources, timeline and responsible persons • Assess the organisational culture fit with the proposed strategy; record culture type, alignment level and gaps identified • Develop a change management plan for one agribusiness strategy; record stakeholders, communication, training and resistance management • Present the implementation plan to the class. • Identify milestones, resource requirements and expected strategic outcomes	guide, change management plan template, HR alignment template, field notebooks, smartphones.
GENERAL OBJECTIVE 6.0: Know strategic evaluation and control in agribusiness						
11– 12	6.1 Describe the strategic evaluation and control process in agribusiness	• Describe strategic evaluation and control process with agribusiness	Strategic evaluation and control guide, strategic KPI	• Design a strategic control system for one agribusiness. • Record five KPIs	Guide students to: • Design a strategic control system for one agribusiness;	Strategic KPI template, balanced scorecard template, strategic audit

	management 6.2 Explain how to design a strategic control system with key performance indicators 6.3 Describe the balanced scorecard as a strategic evaluation tool for agribusiness 6.4 Explain how to conduct a strategic audit of an agribusiness enterprise 6.5 Describe how to revise and adapt strategy based on performance feedback	examples • Demonstrate strategic KPI design for one agribusiness enterprise • Demonstrate balanced scorecard development for one agribusiness enterprise • Explain strategic audit procedure for an agribusiness enterprise • Explain strategy revision and adaptation using performance feedback examples	template, balanced scorecard template, strategic audit checklist, strategy revision guide, projector.	with targets, measurement methods and reporting frequency • Develop a balanced scorecard. • Record four perspectives with two KPIs and targets each • Conduct a strategic audit. • Record strategy implemented, performance against targets and two gaps identified • Prepare a strategy revision recommendation based on audit findings. • Record gaps, root causes and revised strategic actions • Present the strategic audit, balanced scorecard, class performance, gaps and recommended strategic adjustments to the class.	record five KPIs with targets, measurement methods and reporting frequency • Develop a balanced scorecard; record four perspectives with two KPIs and targets each • Conduct a strategic audit; record strategy implemented, performance against targets and two gaps identified • Prepare a strategy revision recommendation based on audit findings; record gaps, root causes and revised strategic actions • Present the strategic audit, balanced scorecard, class performance, gaps and recommended strategic adjustments to the class.	checklist, strategy revision recommendation template, field notebooks, smartphones.

GENERAL OBJECTIVE 7.0: Know human capital management in agribusiness enterprises						
12– 15	7.1 Describe the agribusiness workforce landscape in Nigeria: documented skills gaps, talent shortages and the challenge of attracting qualified staff to rural agribusiness settings 7.2 Explain how to apply competency-based recruitment and selection in agribusiness enterprises: competency frameworks, structured interviews and practical assessments 7.3 Describe how to design and deliver agribusiness staff training and development programmes aligned with enterprise strategy 7.4 Explain how to implement	• Describe Nigerian agribusiness workforce landscape with skills gap data, rural talent challenges and documented employer evidence • Demonstrate competency-based recruitment and selection for one agribusiness enterprise using competency framework and structured interview design • Demonstrate agribusiness staff training and development programme design aligned with enterprise strategic goals • Demonstrate agribusiness performance assessment using target-setting, appraisal and	Nigerian agribusiness workforce landscape guide, competency-based recruitment guide, competency framework template, agribusiness staff training programme template, agribusiness performance assessment guide, workplace behavioural competency standards guide, projector.	• Analyse the Nigerian agribusiness workforce landscape. • Record five documented skills gaps, rural recruitment challenges, employer expectations and two workforce development recommendations • Develop a competency framework for one agribusiness role. • Record five competencies, behavioural indicators for each, assessment method and minimum standard required for appointment • Design a competency-based interview guide for one agribusiness position.	Guide students to: • Analyse the Nigerian agribusiness workforce landscape; record five documented skills gaps, rural recruitment challenges, employer expectations and two workforce development recommendations • Develop a competency framework for one agribusiness role; record five competencies, behavioural indicators for each, assessment method and minimum standard required for appointment • Design a competency-based interview guide for one agribusiness position; record five	Nigerian agribusiness workforce landscape guide, competency framework template, competency-based interview guide template, agribusiness performance appraisal form, professional conduct standards guide, field notebooks, smartphones.

	performance assessment standards in agribusiness settings: setting targets, conducting appraisals and managing underperformance 7.5 Describe workplace communication, professional conduct and behavioural competency standards expected of agribusiness graduates by Nigerian employers	underperformance management examples • Explain workplace communication, professional conduct and behavioural competency standards with Nigerian agribusiness employer examples		• Record five interview questions, each mapped to one competency, with expected evidence of competence and scoring criteria • Conduct a mock performance appraisal for one agribusiness staff scenario. • Record targets set, performance evidence, rating, commendation, improvement area and agreed development action • Develop a personal professional conduct plan for agribusiness professional. • Record five workplace behavioural standards, current self-assessment rating, one improvement action per standard and a mentor to support development	interview questions, each mapped to one competency, with expected evidence of competence and scoring criteria • Conduct a mock performance appraisal for one agribusiness staff scenario; record targets set, performance evidence, rating, commendation, improvement area and agreed development action • Develop a personal professional conduct plan for agribusiness professional; record five workplace behavioural standards, current self-assessment rating, one improvement action per standard and a mentor to support development	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

LOGISTICS, STORAGE AND SUPPLY CHAIN MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: LOGISTICS, STORAGE AND SUPPLY CHAIN MANAGEMENT	**COURSE CODE: ABM 412**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in agricultural logistics, storage management, supply chain operations and cold chain management for agribusiness enterprises.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand agricultural supply chain concepts and management;; 2.0 Know agricultural logistics and transport management; 3.0 Understand storage and warehouse management in agribusiness; 4.0 Know procurement and supply system management in agribusiness; 5.0 Know supply chain digitalisation technologies; 6.0 Understand supply chain performance measurement and improvement; 7.0 Understand cold chain management and refrigeration technology in agribusiness;		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: LOGISTICS, STORAGE AND SUPPLY CHAIN MANAGEMENT	**COURSE CODE: ABM 412**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in agricultural logistics, storage management, supply chain operations and cold chain management for agribusiness enterprises.		
GENERAL OBJECTIVE 1.0: Understand agricultural supply chain concepts and management		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 2	1.1 Define supply chain management 1.2 explain the importance of supply chain management for agribusiness competitiveness 1.3 Describe the components of an agricultural supply chain: suppliers, processors, distributors and retailers 1.4 Explain supply	•Explain SCM; explain importance with Nigerian agribusiness competitiveness examples •Describe agricultural supply chain components with a Nigerian commodity example •Explain upstream and downstream integration with agribusiness	Agricultural supply chain diagram, supply chain risk examples, value creation through SCM evidence, projector.	• Map the supply chain for one Nigerian agricultural commodity. • Record each actor, activity, cost and value added at each stage • Identify three supply chain risks for one Nigerian agribusiness. • Record risk type, probability, impact and one mitigation	Guide students to: • Map the supply chain for one Nigerian agricultural commodity; record each actor, activity, cost and value added at each stage • Identify three supply chain risks for one Nigerian agribusiness; record risk type, probability, impact and one mitigation measure • Calculate the total	Supply chain mapping template, supply chain risk identification guide, supply chain cost calculation worksheet, supply chain integration assessment tool, field notebooks, smartphones.

	chain integration: upstream and downstream linkages in agribusiness 1.5 Describe supply chain risks in Nigerian agribusiness: disruptions, quality failures and logistics gaps 1.6 Explain how supply chain management creates value and reduces costs in agribusiness	examples • Describe supply chain risks with Nigerian agribusiness examples for each • Explain value creation and cost reduction through SCM with Nigerian examples		measure • Calculate the total supply chain cost for one commodity from farm to retail. • Record cost at each stage and as percentage of retail price • Assess supply chain integration for one agribusiness. • Record upstream and downstream linkage quality and two gaps identified • Present the supply chain map to the class/panel. • Identify each actor and two supply chain efficiency improvement opportunities	supply chain cost for one commodity from farm to retail; record cost at each stage and as percentage of retail price • Assess supply chain integration for one agribusiness; record upstream and downstream linkage quality and two gaps identified • Present the supply chain map to the class/panel. • Identify each actor and two supply chain efficiency improvement opportunities	
GENERAL OBJECTIVE 2.0: Know agricultural logistics and transport management						
3– 4	1.7 Describe logistics management: transportation, routing, scheduling and fleet management in agribusiness 1.8 Explain how to	• Describe logistics management with Nigerian agribusiness transport examples • Explain transport mode selection criteria with	Agricultural logistics management guide, transport mode selection guide, transport cost calculation worksheet, last-	• Calculate the transport cost for one agribusiness delivery from farm to market. • record distance, mode, load, cost per tonne and total cost	Guide students to: • Calculate the transport cost for one agribusiness delivery from farm to market; record distance, mode, load, cost per tonne and total cost	Transport cost calculation worksheet, transport mode comparison guide, route design template, last-mile delivery challenge

	select the appropriate transport mode for agricultural commodities 1.9 Describe how to calculate transport costs and evaluate transport efficiency 1.10 Explain last-mile delivery challenges for agricultural products in rural Nigeria 1.11 Describe how digital tools improve agricultural logistics management in Nigeria	commodity and distance examples • Demonstrate transport cost calculation for one agribusiness delivery route • Explain last-mile delivery challenges with Nigerian rural agribusiness examples • Explain digital logistics improvement tools with Nigerian examples	mile delivery guide, digital logistics tools, projector.	• Select the most appropriate transport mode for three delivery scenarios. • Record mode, justification and cost comparison • Design a delivery route for one agribusiness enterprise. • Record stops, distance, delivery schedule and estimated cost • Identify two last-mile delivery challenges for one rural agribusiness. • Record each challenge, effect and one recommended solution • Prepare a logistics improvement plan; record current gaps, digital tools to adopt and expected improvement	• Select the most appropriate transport mode for three delivery scenarios; record mode, justification and cost comparison • Design a delivery route for one agribusiness enterprise; record stops, distance, delivery schedule and estimated cost • Identify two last-mile delivery challenges for one rural agribusiness; record each challenge, effect and one recommended solution • Prepare a logistics improvement plan; record current gaps, digital tools to adopt and expected improvement	guide, logistics improvement plan template, field notebooks, smartphones.
GENERAL OBJECTIVE 3.0: Understand storage and warehouse management in agribusiness						
5– 6	3.1 Describe types of agricultural storage facilities and their	• Describe storage facility types with commodity	Agricultural storage facility types guide,	• Assess one agricultural storage facility.	Guide students to: • Assess one agricultural storage	Agricultural storage facility assessment form,

	suitability for different commodities 3.2 Explain warehouse management: receiving, storage, picking and dispatch operations 3.3 Describe how to maintain quality and reduce post-harvest losses in storage 3.4 Explain cold chain management for perishable agricultural products 3.5 Describe how to design a warehouse layout for one agribusiness storage facility	suitability examples • Explain warehouse operations with receiving to dispatch procedure examples • Explain quality maintenance and post-harvest loss reduction in storage • Explain cold chain management for perishable products with Nigerian examples • Demonstrate warehouse layout design for one agribusiness facility	warehouse operations guide, cold chain management guide, warehouse layout design template, projector.	• Record facility type, capacity, commodities stored, conditions and two improvements recommended • Design a warehouse layout for one agribusiness facility. • Sketch layout, label all zones and record dimensions and capacity • Calculate the value of post-harvest loss reduction from improved storage. • Record current loss percentage, improved percentage and saving per tonne • Prepare a storage quality management checklist. • Record quality parameters, acceptable limits, inspection frequency and corrective action • Map the cold chain for one perishable agribusiness product. • Record each stage,	facility; record facility type, capacity, commodities stored, conditions and two improvements recommended • Design a warehouse layout for one agribusiness facility; sketch layout, label all zones and record dimensions and capacity • Calculate the value of post-harvest loss reduction from improved storage; record current loss percentage, improved percentage and saving per tonne • Prepare a storage quality management checklist; record quality parameters, acceptable limits, inspection frequency and corrective action • Map the cold chain for one perishable agribusiness product. • Record each stage, temperature	warehouse layout design template, post-harvest loss calculation worksheet, storage quality management checklist, cold chain mapping template, field notebooks, smartphones.

				temperature requirement, equipment and gap identified	requirement, equipment and gap identified	
GENERAL OBJECTIVE 4.0: Know procurement and supply system management in agribusiness						
7– 8	4.1 Describe the procurement process in agribusiness: specification, sourcing, selection and contracting 4.2 Explain how to evaluate and select suppliers for an agribusiness enterprise 4.3 Describe supplier relationship management and its importance for supply chain reliability 4.4 Explain how to negotiate procurement contracts with suppliers in agribusiness 4.5 Describe how to monitor supplier performance in agribusiness supply chains	• Describe procurement process with an agribusiness input supply example • Demonstrate supplier evaluation and selection for one agribusiness enterprise • Explain SRM importance and strategies with Nigerian agribusiness examples • Demonstrate procurement contract negotiation for one agribusiness input • Demonstrate supplier performance monitoring using a scorecard	Agribusiness procurement process guide, supplier evaluation template, SRM guide, procurement contract template, supplier performance scorecard, projector.	• Prepare procurement specifications for three agribusiness inputs. • Record each input, quantity, quality standard, delivery schedule and budget • Evaluate three suppliers for one agribusiness input. • Record supplier, price, quality, reliability and total score • Prepare a procurement contract for one agribusiness input. • Record parties, specification, price, delivery and payment terms • Prepare a supplier relationship management plan for one key supplier. • Record relationship	Guide students to: • Prepare procurement specifications for three agribusiness inputs; record each input, quantity, quality standard, delivery schedule and budget • Evaluate three suppliers for one agribusiness input; record supplier, price, quality, reliability and total score • Prepare a procurement contract for one agribusiness input; record parties, specification, price, delivery and payment terms • Prepare a supplier relationship management plan for one key supplier; record relationship	Procurement specifications template, supplier evaluation template, procurement contract template, supplier performance scorecard, SRM plan template, field notebooks, smartphones.

				objectives, communication frequency and improvement targets	objectives, communication frequency and improvement targets	
GENERAL OBJECTIVE 5.0: Know supply chain digitalisation technologies						
9– 10	5.1 Describe digital supply chain management tools: ERP, TMS, WMS and IoT in agribusiness 5.2 Explain how blockchain technology improves transparency and traceability in agribusiness supply chains 5.3 Describe how digital tracking and tracing systems monitor agricultural product movement 5.4 Explain how to implement a digital inventory management system for an agribusiness 5.5 Describe how data analytics supports supply chain decision-making in agribusiness	• Describe digital SCM tools with agribusiness application examples for each • Explain blockchain supply chain transparency with Nigerian agribusiness examples • Describe digital tracking and tracing with agribusiness product movement examples • Demonstrate digital inventory management system implementation for one agribusiness • Explain data analytics in supply chain decision-making with agribusiness examples	Digital SCM tools guide, blockchain supply chain guide, digital tracking and tracing guide, digital inventory management system, supply chain data analytics guide, projector.	• Research two digital supply chain tools used in Nigerian agribusiness. • Record tool, function, users, cost and expected benefit • Track the movement of one agribusiness product using a digital tool. • Record each stage, time, location and condition • Implement a digital inventory management system for one agribusiness warehouse. • Record setup steps, items entered and first stock count • Analyse supply chain data for one agribusiness. • Record order fulfilment rate, stockout frequency,	Guide students to: • Research two digital supply chain tools used in Nigerian agribusiness; record tool, function, users, cost and expected benefit • Track the movement of one agribusiness product using a digital tool; record each stage, time, location and condition • Implement a digital inventory management system for one agribusiness warehouse; record setup steps, items entered and first stock count • Analyse supply chain data for one agribusiness; record order fulfilment rate, stockout frequency,	Digital SCM tools research guide, digital product tracking tool, digital inventory management system, supply chain data analysis template, digital supply chain adoption plan template, field notebooks, smartphones.

				lead time and two improvement actions • Prepare a digital supply chain adoption plan. • Record tools to adopt, implementation steps, cost and expected benefit	lead time and two improvement actions • Prepare a digital supply chain adoption plan. • Record tools to adopt, implementation steps, cost and expected benefit	
GENERAL OBJECTIVE 6.0: Understand supply chain performance measurement and improvement						
11– 12	4.6 Describe supply chain performance indicators: delivery, quality, cost and flexibility metrics 4.7 Explain how to design a supply chain performance dashboard for an agribusiness enterprise 4.8 Describe how to use the Supply Chain Operations Reference (SCOR) model for supply chain performance benchmarking 4.9 Explain lean supply chain principles and their application in agribusiness	• Describe supply chain performance indicators with agribusiness measurement examples • Demonstrate supply chain performance dashboard design for one agribusiness • Explain SCOR model with agribusiness benchmarking application • Explain lean supply chain principles with agribusiness waste reduction	Supply chain performance indicators guide, performance dashboard template, SCOR model guide, lean supply chain guide, supply chain improvement plan template, projector.	• Measure five supply chain performance indicators for one agribusiness. • Record each indicator, target, actual performance and gap • Design a supply chain performance dashboard. • Record four indicators with current value, target and status • Apply the SCOR model to benchmark one agribusiness supply chain against one competitor. • Record each metric and gap	Guide students to: • Measure five supply chain performance indicators for one agribusiness; record each indicator, target, actual performance and gap • Design a supply chain performance dashboard; record four indicators with current value, target and status • Apply the SCOR model to benchmark one agribusiness supply chain against one competitor; record each metric and gap • Identify three supply	Supply chain performance indicators guide, performance dashboard template, SCOR model template, lean waste identification guide, supply chain improvement plan template, field notebooks, smartphones,

	4.10 Describe how to develop a supply chain improvement plan for an agribusiness enterprise	examples • Demonstrate supply chain improvement plan development for one agribusiness		• Identify three supply chain waste areas using lean principles. • Record waste type, cause, impact and one elimination action • Develop a supply chain improvement plan. • Record improvement actions, responsible persons, timeline and expected outcome	chain waste areas using lean principles; record waste type, cause, impact and one elimination action • Develop a supply chain improvement plan. • Record improvement actions, responsible persons, timeline and expected outcome	
GENERAL OBJECTIVE 7.0: Understand cold chain management and refrigeration technology in agribusiness						
13– 15	5.6 Describe the principles of temperature management for perishable agricultural commodities: pre-cooling requirements, cold storage temperature ranges and refrigerated transport standards for Nigerian agribusiness 5.7 Explain cold room design, operation and basic	• Describe temperature management principles with Nigerian perishable commodity pre-cooling, cold storage and transport temperature examples • Explain cold room design, operation and maintenance with temperature logging, defrost management and fault identification	Temperature management principles guide, cold room operation and maintenance guide, refrigeration equipment types guide, cold chain logistics guide, IoT temperature monitoring guide, post-harvest loss quantification and cold chain investment business case	• Map the cold chain for two Nigerian perishable agribusiness products. • Record each stage, required temperature range, equipment needed, current practice and one temperature breach risk for each product • Conduct a cold room or chilled storage facility inspection at one local agribusiness or market facility. • Record temperature observed, temperature	Guide students to: • Map the cold chain for two Nigerian perishable agribusiness products; record each stage, required temperature range, equipment needed, current practice and one temperature breach risk for each product • Conduct a cold room or chilled storage facility inspection at one local agribusiness or market facility; record temperature	Cold chain mapping template, cold room inspection checklist, refrigeration equipment identification guide, cold chain logistics plan template, post-harvest loss data, cold chain investment business case calculation worksheet, IoT temperature

	maintenance: temperature logging procedures, defrost management, fault identification and corrective action for agribusiness cold chain facilities 5.8 Describe refrigeration equipment types and operating principles used in Nigerian agribusiness cold chain settings: cold rooms, refrigerated trucks, display chillers and portable coolers 5.9 Explain cold chain logistics for agribusiness: refrigerated transport procurement, route planning for temperature-sensitive cargo, last-mile cold chain challenges in Nigerian markets and phytosanitary compliance requirements	examples • Describe refrigeration equipment types with operating principles and agribusiness cold chain application examples for each • Explain cold chain logistics with refrigerated transport procurement, route planning, last-mile challenges and phytosanitary compliance examples • Describe IoT temperature monitoring and remote platform tools; demonstrate post-harvest loss quantification and cold chain investment business case calculation	worksheet, projector.	log review, defrost schedule, fault signs observed and three maintenance recommendations • Identify refrigeration equipment used at one agribusiness or cold chain facility. • Record each equipment type, operating principle, temperature range achieved, maintenance observed and one operational improvement recommended • Design a cold chain logistics plan for one Nigerian perishable commodity from farm to urban market. • Record each leg, transport mode, temperature requirement, loading procedure, estimated transit time and phytosanitary compliance step • Calculate the business case for cold chain investment for one	observed, temperature log review, defrost schedule, fault signs observed and three maintenance recommendations • Identify refrigeration equipment used at one agribusiness or cold chain facility; record each equipment type, operating principle, temperature range achieved, maintenance observed and one operational improvement recommended • Design a cold chain logistics plan for one Nigerian perishable commodity from farm to urban market; record each leg, transport mode, temperature requirement, loading procedure, estimated transit time and phytosanitary compliance step • Calculate the business case for cold chain investment for one	monitoring guide, projector, smartphones, field notebooks.

	5.10 Describe digital monitoring tools for cold chain management: Internet of Things (IoT) based temperature sensors, remote monitoring platforms and automated alert systems and how to calculate the business case for cold chain investment using post-harvest loss data			Nigerian agribusiness. • Record current post-harvest loss percentage, loss value per season, investment cost of one cold chain intervention, estimated loss reduction and payback period	Nigerian agribusiness; record current post-harvest loss percentage, loss value per season, investment cost of one cold chain intervention, estimated loss reduction and payback period	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

AGRIBUSINESS PROJECT MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS PROJECT MANAGEMENT	**COURSE CODE: ABM 413**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in agribusiness project planning, implementation, monitoring and evaluation for agribusiness development.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand agribusiness project management concepts and lifecycle; 2.0 Understand project identification and feasibility assessment; 3.0 Understand project planning and scheduling; 4.0 Understand project resource management and budgeting; 5.0 Know project monitoring, evaluation and reporting; 6.0 Understand project risk management and project closeout.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS PROJECT MANAGEMENT	**COURSE CODE: ABM 413**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in agribusiness project planning, implementation, monitoring and evaluation for agribusiness development.		
GENERAL OBJECTIVE 1.0: Understand agribusiness project management concepts and lifecycle		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1-2	1.1 Define a project 1.2 Explain how agricultural projects differ from routine agribusiness operations 1.3 Describe the project management lifecycle: initiation, planning, execution, monitoring and closeout 1.4 Explain the roles	• Explain project; explain differences from routine operations with agricultural examples • Describe project lifecycle with an agricultural project example for each phase • Explain project manager and team roles with agricultural project examples	Project management lifecycle diagram, project manager roles guide, PM knowledge areas guide, agricultural project management frameworks guide, projector.	• Create visual content to classify five agricultural activities as projects or operations. • Record classification, criteria and justification • Map the project lifecycle for one Nigerian agricultural project. • Record key activities, deliverables and decisions at each	Guide students to: • Create visual content to classify five agricultural activities as projects or operations. • Record classification, criteria and justification • Map the project lifecycle for one Nigerian agricultural project. • Record key activities, deliverables and	Project versus operations classification worksheet, project lifecycle mapping template, PM knowledge areas guide, Nigerian agricultural project research guide, field notebooks.

	and responsibilities of the project manager and team in agricultural projects 1.5 Describe the project management (PM) knowledge areas: scope, time, cost, quality and risk 1.6 Explain how agricultural project management frameworks improve development outcomes in Nigeria	• Describe PM knowledge areas with agricultural project application examples • Explain PM frameworks and development outcomes with Nigerian agricultural examples		phase • Identify the PM knowledge areas applied in one agricultural project. • Record each area and how it was applied • Research one successful Nigerian agricultural project. • Record objectives, manager roles, outcomes and lessons learned • Present the project lifecycle map to the class. • Identify each phase and two critical success factors identified	decisions at each phase • Identify the PM knowledge areas applied in one agricultural project; record each area and how it was applied • Research one successful Nigerian agricultural project; record objectives, manager roles, outcomes and lessons learned • Present the project lifecycle map to the class. • Identify each phase and two critical success factors identified	
GENERAL OBJECTIVE 2.0: Understand project identification and feasibility assessment						
3-4	1.7 Describe how to identify agribusiness project opportunities through needs assessment 1.8 Explain how to conduct a stakeholder	• Explain needs assessment for agribusiness project identification with PRA tools • Demonstrate stakeholder analysis for one agribusiness project • Demonstrate project	Needs assessment guide, stakeholder analysis template, project concept note template, feasibility study guide, project charter template, projector.	• Conduct a needs assessment for one agribusiness project opportunity. • Record problems, priority needs and proposed project response • Conduct a stakeholder analysis.	Guide students to: • Conduct a needs assessment for one agribusiness project opportunity; record problems, priority needs and proposed project response • Conduct a stakeholder analysis; record each	Needs assessment tools, stakeholder analysis template, project concept note template, feasibility assessment guide, project charter template, field notebooks.

	analysis for an agribusiness project 1.9 Describe the components of a project concept note for an agribusiness development project 1.10 Explain how to conduct a feasibility study for an agribusiness project 1.11 Describe how to prepare a project charter to formally authorise an agribusiness project	concept note preparation for one agribusiness opportunity • Explain feasibility study components for an agribusiness project • Demonstrate project charter preparation for one agribusiness project		•Record each stakeholder, interest, influence and engagement strategy •Prepare a project concept note; include background, objectives, activities, budget estimate and expected outcomes •Conduct a feasibility assessment. •Record market, technical, financial and institutional feasibility findings •Prepare a project charter. •Record project title, objectives, scope, budget, timeline and authorisation	stakeholder, interest, influence and engagement strategy •Prepare a project concept note; include background, objectives, activities, budget estimate and expected outcomes •Conduct a feasibility assessment; record market, technical, financial and institutional feasibility findings •Prepare a project charter. •Record project title, objectives, scope, budget, timeline and authorisation	
GENERAL OBJECTIVE 3.0: Understand project planning and scheduling						
5– 6	1.12 Describe how to develop a project Work Breakdown Structure (WBS) for an agribusiness project 1.13 Explain how to create a project activity list and estimate activity	• Demonstrate WBS development for one agribusiness project • Demonstrate activity list and duration estimation for one agribusiness project	WBS template, activity list and duration estimation guide, Gantt chart template, CPM guide, project communication plan template, projector.	•Develop a WBS for one agricultural project. •Record all deliverables and work packages to at least three levels •Prepare an activity list with duration estimates.	Guide students to: •Develop a WBS for one agricultural project; record all deliverables and work packages to at least three levels •Prepare an activity list with duration estimates; record	WBS template, activity list and duration estimation guide, Gantt chart template, CPM calculation guide, project communication plan template,

	durations 1.14 Describe how to develop a project schedule using a Gantt chart 1.15 Explain the Critical Path Method (CPM) and Performance Evaluation Review Technique (PERT) and their application in agribusiness project scheduling 1.16 Describe how to develop a project communication plan for stakeholders	• Demonstrate Gantt chart preparation for one agribusiness project • Explain and demonstrate CPM and PERT for one agribusiness project network • Demonstrate project communication plan preparation		•Record activity, duration, dependencies and resources for each •Develop a Gantt chart. •Record all activities, start dates, end dates and dependencies •Identify the critical path using CPM. •Record all paths, durations and the critical path activities •Prepare a project communication plan. •Record stakeholder, information needed, format, frequency and responsible person	activity, duration, dependencies and resources for each •Develop a Gantt chart; record all activities, start dates, end dates and dependencies •Identify the critical path using CPM; record all paths, durations and the critical path activities •Prepare a project communication plan. •Record stakeholder, information needed, format, frequency and responsible person	field notebooks.
GENERAL OBJECTIVE 4.0: Understand project resource management and budgeting						
7– 9	4.1 Describe how to develop a project resource plan: staff, equipment, materials and services 4.2 Explain how to prepare a project budget using various techniques e.g. bottom-up and top-down	• Demonstrate project resource plan development for one agricultural project • Demonstrate budget preparation for agricultural project using various techniques e.g. bottom-up and top-down	Project resource plan template, project budget template, project procurement guide, EVM guide, project financial report template, projector.	•Develop a project resource plan; record resource type, quantity, cost and assignment to activities •Prepare a project budget using bottom-up estimation. •Record costs for all work packages and total project cost	Guide students to: •Develop a project resource plan; record resource type, quantity, cost and assignment to activities •Prepare a project budget using bottom-up estimation; record costs for all work packages and total	Project resource plan template, project budget template, project procurement specifications template, EVM calculation guide, project financial report template, field notebooks.

	estimation 4.3 Describe how to manage project procurement: specification, sourcing and contracting 4.4 Explain how to apply earned value management (EVM) for project cost control 4.5 Describe how to manage project budget variances and prepare financial reports	estimation • Explain project procurement management with an agricultural input example • Demonstrate earned value management calculation for one project • Demonstrate budget variance analysis and financial report preparation		•Prepare procurement specifications for two major project inputs. •Record specification, quantity, quality standard and budget •Calculate EVM metrics for one project at midpoint; record PV, EV, AC, SPI and CPI •Prepare a project financial report for one quarter. •Record budget, actual expenditure, variance and forecast to completion	project cost •Prepare procurement specifications for two major project inputs; record specification, quantity, quality standard and budget •Calculate EVM metrics for one project at midpoint; record PV, EV, AC, SPI and CPI •Prepare a project financial report for one quarter. •Record budget, actual expenditure, variance and forecast to completion	
GENERAL OBJECTIVE 5.0: Know project monitoring, evaluation and reporting						
10– 12	5.1 Explain the concept of M&E in agribusiness project management 5.2 State the types of Monitoring and Evaluation (M&E) in agribusiness project management 5.3 Describe project M&E framework:	• Describe project M&E framework with agricultural project indicator examples • Demonstrate M&E plan development aligned with a project log frame • Explain monitoring data collection and field visit procedures	Project M&E framework guide, M&E plan template, monitoring data collection form, project progress report template, project evaluation guide, projector.	•Develop a project M&E plan. •Record indicators, targets, data source, collection method and frequency •Design a monitoring data collection tool for two key project indicators including questions, response options and recording method	Guide students to: •Develop a project M&E plan; record indicators, targets, data source, collection method and frequency •Design a monitoring data collection tool for two key project indicators including questions, response options and recording method	Project M&E plan template, monitoring data collection tool template, project monitoring data recording form, project progress report template, project evaluation plan template, field notebooks.

	indicators, data collection and analysis 5.4 Explain how to develop a project M&E plan aligned with the project log frame 5.5 Describe how to collect monitoring data and conduct field visits for agribusiness projects 5.6 Explain how to write a project progress report for donors and stakeholders	• Demonstrate project progress report writing for one agribusiness project • Explain mid-term and final evaluation procedures for agribusiness projects		•Collect monitoring data for one agribusiness project activity. •Record all data and prepare a findings summary •Write a project progress report for one quarter. •Record activities completed, indicators achieved, challenges and next steps	•Collect monitoring data for one agribusiness project activity; record all data and prepare a findings summary •Write a project progress report for one quarter. •Record activities completed, indicators achieved, challenges and next steps	
GENERAL OBJECTIVE 6.0: Understand project risk management and project closeout						
13– 15	6.1 Define risk and risk management in agribusiness 6.2 Describe the project risk management process: identification, analysis, response planning and monitoring 6.3 Explain how to	• Describe risk management process with an agricultural project example for each step • Demonstrate risk register preparation for one agricultural project • Explain risk response strategies	Project risk management process guide, project risk register template, risk response strategies guide, project closeout checklist, project completion report template, projector.	• Identify and assess ten risks for one agricultural project; record risk description, probability, impact and risk score • Prepare a project risk register with response plans for all identified risks; record risk, response strategy and	Guide students to: • Identify and assess ten risks for one agricultural project; record risk description, probability, impact and risk score • Prepare a project risk register with response plans for all identified risks; record risk,	Project risk identification guide, project risk register template, risk monitoring form, project closeout checklist template, project completion report template, field notebooks.

	prepare a project risk register for an agricultural project 6.4 Describe risk response strategies: avoidance, mitigation, transfer and acceptance 6.5 Explain the project closeout process: deliverable acceptance, documentation and lessons learned 6.6 Describe how to prepare a project completion report for an agricultural project	with agricultural project examples for each • Explain project closeout procedure with an agricultural project checklist • Demonstrate project completion report preparation for one agricultural project		contingency action • Monitor project risks during its lifetime; record status changes, new risks identified and response actions implemented • Prepare a project closeout checklist; record all deliverables, acceptance criteria and sign-off status • Prepare a project completion report; record objectives achieved, lessons learned and recommendations for future projects	response strategy and contingency action • Monitor project risks during its lifetime; record status changes, new risks identified and response actions implemented • Prepare a project closeout checklist; record all deliverables, acceptance criteria and sign-off status • Prepare a project completion report; record objectives achieved, lessons learned and recommendations for future projects	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

FOOD SAFETY, TRACEABILITY AND ONE HEALTH IN SUPPLY CHAINS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: FOOD SAFETY, TRACEABILITY AND ONE HEALTH IN SUPPLY CHAINS	**COURSE CODE: ABM 414**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in food safety management, supply chain traceability and One Health approaches for agribusiness enterprises.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand food safety concepts and regulatory frameworks; 2.0 Understand HACCP-based food safety management systems; 3.0 Understand supply chain traceability systems in agribusiness; 4.0 Understand the One Health approach in agribusiness supply chains; 5.0 Understand cold chain and hygiene management in agribusiness; 6.0 Understand food safety compliance and certification.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: FOOD SAFETY, TRACEABILITY AND ONE HEALTH IN SUPPLY CHAINS	**COURSE CODE: ABM 414**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in food safety management, supply chain traceability and One Health approaches for agribusiness enterprises.		
GENERAL OBJECTIVE 1.0: Understand food safety concepts and regulatory frameworks		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1 – 2	1.1 Define food safety 1.2 Explain the importance of food safety in agribusiness enterprise and consumer protection 1.3 Describe the types of food hazards: biological, chemical, physical and allergenic hazards 1.4 Explain the Nigerian food safety regulatory framework:	• Explain food safety; explain importance with Nigerian agribusiness and consumer protection examples • Describe food hazard types with agribusiness product examples for each • Explain Nigerian regulatory framework with	Food hazard types guide, Nigerian food safety regulatory framework, international food safety standards summary, food safety failure consequences guide, projector.	• Identify food hazards at three stages of one agribusiness food production process. • Record stage, hazard type, source and severity • Research NAFDAC registration requirements for one agribusiness food product, • Record requirements,	Guide students to: • Identify food hazards at three stages of one agribusiness food production process; record stage, hazard type, source and severity • Research NAFDAC registration requirements for one agribusiness food product; record requirements,	Food hazard identification guide, NAFDAC registration research guide, international food safety standard assessment checklist, food safety regulatory compliance checklist template, field notebooks.

	NAFDAC, SON and state food safety agencies 1.5 Describe international food safety standards: Codex Alimentarius, SPS Agreement and EU regulations 1.6 Explain the consequences of food safety failures for Nigerian agribusiness enterprises	agency mandate and enforcement examples • Describe international food safety standards with Nigerian agribusiness compliance implications • Explain food safety failure consequences with Nigerian agribusiness case examples		documentation and registration process • Assess one agribusiness food product against one international food safety standard. • Record requirements, compliance status and gaps • Prepare a food safety regulatory compliance checklist for one agribusiness enterprise • Record agency, requirement and compliance status • Present the food safety hazard analysis to the class. • Prepare presentation slides to explain hazards identified and two priority control measures recommended	documentation and registration process • Assess one agribusiness food product against one international food safety standard; record requirements, compliance status and gaps • Prepare a food safety regulatory compliance checklist for one agribusiness enterprise; record agency, requirement and compliance status • Present the food safety hazard analysis to the class • Prepare presentation slides to explain hazards identified and two priority control measures recommended	
GENERAL OBJECTIVE 2.0: Understand HACCP-based food safety management systems						
3–5	2.1 Define HACCP	• Describe seven	HACCP principles	• Conduct a hazard	Guide students to:	HACCP hazard

	2.2 Describe the seven HACCP principles and the five preliminary steps for HACCP implementation 2.3 Explain how to conduct a hazard analysis and identify critical control points for an agribusiness product 2.4 Describe how to set critical limits, monitoring procedures and corrective actions for Critical Control Points (CCPs) 2.5 Explain how to develop HACCP verification and record-keeping procedures 2.6 Describe how to prepare a complete HACCP plan for a simple agribusiness food product	HACCP principles and five preliminary steps with a food processing example • Demonstrate hazard analysis and CCP identification for one agribusiness product • Demonstrate critical limit, monitoring and corrective action setting for identified CCPs • Explain HACCP verification and record-keeping procedures with documentation examples • Demonstrate complete HACCP plan preparation for one agribusiness food product	guide, HACCP preliminary steps guide, hazard analysis worksheet, CCP decision tree, HACCP plan template, projector.	analysis for one agribusiness food product. • Record hazards at each processing step with severity and likelihood • Identify all CCPs using the CCP decision tree. • Record decision for each processing step and justify CCP determinations • Set critical limits and monitoring procedures for all CCPs. • Record CCP, parameter, critical limit, monitoring method and frequency • Develop corrective actions for each CCP. • Record trigger, action, responsible person and record to complete • Prepare a complete HACCP plan for one agribusiness	• Conduct a hazard analysis for one agribusiness food product; record hazards at each processing step with severity and likelihood • Identify all CCPs using the CCP decision tree; record decision for each processing step and justify CCP determinations • Set critical limits and monitoring procedures for all CCPs; record CCP, parameter, critical limit, monitoring method and frequency • Develop corrective actions for each CCP; record trigger, action, responsible person and record to complete • Prepare a complete HACCP plan for one agribusiness food product including all	analysis worksheet, CCP decision tree, critical limits and monitoring procedures template, corrective action record template, complete HACCP plan template, field notebooks.

				food product including all required sections and supporting documents	required sections and supporting documents	
GENERAL OBJECTIVE 3.0: Understand supply chain traceability systems in agribusiness						
6–7	3.1 Define labelling 3.2 Define traceability 3.3 Explain the importance of traceability for food safety and quality assurance in agribusiness 3.4 Describe traceability systems used in agribusiness: barcodes, QR codes, Radio Frequency Identification (RFID) and batch tracking 3.5 Explain how to design a traceability system for a simple agribusiness supply chain 3.6 Describe how blockchain technology enhances supply chain traceability in agribusiness	• Explain traceability and labelling; explain importance with Nigerian agribusiness food safety examples • Describe traceability systems with agribusiness application examples for each • Demonstrate traceability system design for one agribusiness supply chain • Explain blockchain traceability with Nigerian agribusiness examples • Explain product recall management using traceability with agribusiness examples	Traceability systems guide, QR code generator, RFID guide, traceability system design template, blockchain traceability guide, product recall procedure guide, projector.	• Design a traceability system for one agribusiness supply chain. • Record traceability unit, data captured at each stage and tracking method • Generate QR codes for five agribusiness products. • Record product data encoded and test scanning to verify traceability information • Trace one agribusiness product from retail to farm using a provided traceability dataset. • Record each stage, actor and data found • Prepare a product	Guide students to: • Design a traceability system for one agribusiness supply chain; record traceability unit, data captured at each stage and tracking method • Generate QR codes for five agribusiness products; record product data encoded and test scanning to verify traceability information • Trace one agribusiness product from retail to farm using a provided traceability dataset; record each stage, actor and data found	Traceability system design template, QR code generator, agribusiness traceability dataset, product recall procedure template, traceability gap assessment tool, field notebooks.

	3.7 Explain how traceability systems support product recall management in agribusiness			recall procedure using traceability data. • Record trigger, steps, responsible person and communication plan • Assess the traceability gap in one local agribusiness supply chain. • Record stages with no traceability, risk and one improvement recommended	• Prepare a product recall procedure using traceability data. • Record trigger, steps, responsible person and communication plan • Assess the traceability gap in one local agribusiness supply chain. • Record stages with no traceability, risk and one improvement recommended	
GENERAL OBJECTIVE 4.0: Understand the One Health approach in agribusiness supply chains						
8–9	4.1 Define One Health 4.2 Explain how One Health approach links human, animal and environmental health in agribusiness 4.3 Describe how zoonotic diseases affect agribusiness supply chains and food safety in Nigeria	• Explain One Health; explain linkages with Nigerian agribusiness food safety examples • Describe zoonotic diseases affecting Nigerian agribusiness with supply chain impact examples • Explain AMR	One Health concept guide, zoonotic disease agribusiness impact guide, AMR agribusiness guide, One Health supply chain risk management guide, projector.	• Map the One Health linkages in one Nigerian agribusiness supply chain. • Record human, animal and environmental health interfaces at each stage • Identify two zoonotic disease risks in one	Guide students to: • Map the One Health linkages in one Nigerian agribusiness supply chain; record human, animal and environmental health interfaces at each stage • Identify two zoonotic disease risks in one	One Health supply chain mapping template, zoonotic disease risk identification guide, AMR risk assessment guide, One Health risk management checklist template, field notebooks.

	4.4 Explain how antimicrobial resistance in livestock affects agribusiness food safety and export compliance 4.5 Describe how to apply One Health principles in agribusiness supply chain risk management 4.6 Explain how Nigerian agribusiness enterprises can contribute to One Health outcomes	impact on agribusiness food safety and export with Nigerian examples • Explain One Health principles application in supply chain risk management • Explain Nigerian agribusiness enterprise contribution to One Health with examples		agribusiness supply chain. • Record disease, transmission route, supply chain impact and control measure • Assess AMR risk in one livestock-based agribusiness supply chain. • Record antibiotic use practices, risk level and one recommended action • Prepare a One Health risk management checklist for one agribusiness supply chain. • Record each health interface, risk and mitigation measure • Present the One Health supply chain analysis to the class. • Create presentation slide to explain risks identified and two recommended One Health interventions	agribusiness supply chain; record disease, transmission route, supply chain impact and control measure • Assess AMR risk in one livestock-based agribusiness supply chain; record antibiotic use practices, risk level and one recommended action • Prepare a One Health risk management checklist for one agribusiness supply chain; record each health interface, risk and mitigation measure • Present the One Health supply chain analysis to the class. • Create presentation slide to explain risks identified and two recommended One Health interventions	

GENERAL OBJECTIVE 5.0: Understand cold chain and hygiene management in agribusiness						
10–12	5.1 Describe the cold chain for perishable agricultural products and its importance for food safety 5.2 Explain how to monitor and control temperature throughout the agribusiness cold chain 5.3 Explain the concept of carbon footprint tracing in food systems 5.4 Explain conventional refrigerant and environmentally friendly alternatives; name them, state their environmental impacts and common use 5.5 Describe how to estimate carbon footprint in food systems 5.6 Describe good hygiene practices for agribusiness food handling and	•Describe cold chain for perishable products with Nigerian agribusiness examples •Demonstrate temperature monitoring and control in cold chain management •Explain the concept of carbon footprint tracing in food systems •Discuss conventional refrigerant and environmentally friendly alternatives; name them, state their environmental impacts and common use •Describe how to estimate carbon footprint in food systems •Explain good hygiene practices for agribusiness	Cold chain management guide, temperature monitoring tools, good hygiene practices guide, sanitation and cleaning schedule template, food hygiene training guide, projector.	• Map the cold chain for one perishable agribusiness product. • Record each stage, required temperature, equipment used and observed gap • Monitor temperature at four cold chain points for one product. • Record location, required and actual temperature and corrective action • Complete a personal hygiene checklist before one agribusiness food handling session. • Record each item and compliance status • Prepare a sanitation and cleaning schedule for one agribusiness facility. • Record area, method, frequency,	Guide students to: • Map the cold chain for one perishable agribusiness product; record each stage, required temperature, equipment used and observed gap • Monitor temperature at four cold chain points for one product; record location, required and actual temperature and corrective action • Complete a personal hygiene checklist before one agribusiness food handling session; record each item and compliance status • Prepare a sanitation and cleaning schedule for one agribusiness facility; record area, method, frequency, responsible person	Cold chain mapping template, temperature monitoring recording form, personal hygiene checklist, sanitation and cleaning schedule template, food hygiene training assessment form, field notebooks.

	processing 5.7 Explain how to develop a sanitation and cleaning schedule for an agribusiness facility 5.8 Describe how to train agribusiness staff in food hygiene and cold chain management	food handling and processing •Discuss how to develop a sanitation and cleaning schedule for an agribusiness facility •Describe how to train agribusiness staff in food hygiene and cold chain management		responsible person and record • Deliver a ten-minute food hygiene training to five classmates. • Record content, method, participant feedback and two improvements • Calculate the carbon footprint of two cold storage scenarios for a selected food commodity and compare them	and record • Deliver a ten-minute food hygiene training to five classmates; record content, method, participant feedback and two improvements • Calculate the carbon footprint of two cold storage scenarios for a selected food commodity and compare them	
GENERAL OBJECTIVE 6.0: Understand food safety compliance and certification						
13–15	6.1 Describe the NAFDAC product registration process for Nigerian agribusiness food products 6.2 Explain how to prepare a NAFDAC-compliant food product label for one agribusiness product 6.3 Describe the steps for obtaining Global GAP or ISO 22000 certification for a	• Describe NAFDAC registration process with step-by-step requirements and documentation • Demonstrate NAFDAC-compliant food label design for one agribusiness product • Describe Global GAP or ISO 22000 certification steps for a Nigerian	NAFDAC registration guide, NAFDAC label requirements, food label design template, Global GAP or ISO 22000 certification guide, compliance documentation management guide, regulatory audit response guide, projector.	•Prepare a NAFDAC product registration dossier checklist; record all required documents, fees and submission steps •Design a NAFDAC-compliant label for one agribusiness food product. •Record all required label elements and verify compliance •Prepare a food safety certification action	Guide students to: •Prepare a NAFDAC product registration dossier checklist; record all required documents, fees and submission steps •Design a NAFDAC-compliant label for one agribusiness food product; record all required label elements and verify compliance •Prepare a food safety	NAFDAC product registration dossier checklist, food label design template, food safety certification action plan template, food safety compliance documentation folder guide, food safety inspection checklist, field notebooks.

	Nigerian agribusiness 6.4 Explain how to manage food safety compliance documentation in an agribusiness enterprise 6.5 Describe how to respond to food safety inspections and regulatory audits professionally	agribusiness • Explain food safety compliance documentation management for an agribusiness • Explain professional response to food safety inspections and regulatory audits		plan. •Record certification target, gap analysis, actions and timeline •Compile a food safety compliance documentation folder; include policy, HACCP plan, procedures, monitoring records and audit reports •Conduct a mock food safety inspection of one agribusiness facility. •Record findings, non-conformances and corrective actions recommended	certification action plan; record certification target, gap analysis, actions and timeline •Compile a food safety compliance documentation folder; include policy, HACCP plan, procedures, monitoring records and audit reports •Conduct a mock food safety inspection of one agribusiness facility. •Record findings, non-conformances and corrective actions recommended	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

MACROECONOMICS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: MACROECONOMICS	**COURSE CODE: ABM 415**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in macroeconomic principles and their application to agribusiness planning and investment in Nigeria.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand the macroeconomics scope, key concepts and models; 2.0 Understand consumption, savings and investment; 3.0 Understand unemployment and the concept of full employment; 4.0 Know money supply and price level; demand and supply of money; 5.0 Understand monetary and fiscal policies analysis in agribusiness; 6.0 Understand inflation and its management.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: MACROECONOMICS	**COURSE CODE: ABM 415**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in macroeconomic principles and their application to agribusiness planning and investment in Nigeria.		
GENERAL OBJECTIVE 1.0: Understand the macroeconomics scope, key concepts and models		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1–2	1.1 Define macroeconomics 1.2 Explain how macroeconomics differs from microeconomics 1.3 Describe key macroeconomic indicators: Gross Domestic Product (GDP), Gross National Product (GNP), National Income (NI), inflation rate, unemployment rate and interest rate	• Explain macroeconomics and distinguish from microeconomics with agribusiness examples • Describe GDP, inflation, unemployment and interest rate with Nigerian data examples • Explain macroeconomic conditions' effect on agribusiness planning with	Macroeconomics overview guide, Nigerian macroeconomic indicators data, business cycle diagram, CBN and NBS data sources, projector.	• Collect five current Nigerian macroeconomic indicators from CBN or NBS. • Record each indicator, current value, trend and one implication to the agribusiness sector • Assess the current phase of the Nigerian business cycle. • Record indicators	Guide students to: • Collect five current Nigerian macroeconomic indicators from CBN or NBS; record each indicator, current value, trend and one implication to the agribusiness sector • Assess the current phase of the Nigerian business cycle; record indicators	CBN and NBS data sources, macroeconomic indicators data collection form, business cycle assessment guide, macroeconomic environment brief template, projector.

	1.4 Explain the concept of macroeconomic models: two, three and four sector economic models 1.5 Explain how macroeconomic conditions affect agribusiness planning and investment decisions in Nigeria 1.6 Describe the Nigerian business cycle and its effect on agribusiness enterprise performance 1.7 Explain sources of Nigerian macroeconomic data 1.8 Describe the agricultural sector's contribution to Nigerian GDP and its trend over five years	Nigerian examples • Describe Nigerian business cycle phases with agribusiness performance examples • Identify CBN, NBS and World Bank as data sources; demonstrate how to find key indicators		reviewed, phase identified and two agribusiness decisions appropriate for the phase • Prepare a one-page macroeconomic environment brief for the Nigerian agricultural sector covering five key macroeconomic indicators and their implications • Present the macroeconomic brief to the class. • Identify two indicators most critical for agribusiness planning	reviewed, phase identified and two agribusiness decisions appropriate for the phase • Prepare a one-page macroeconomic environment brief for the Nigerian agricultural sector covering five key macroeconomic indicators and their implications • Present the macroeconomic brief to the class. • Identify two indicators most critical for agribusiness planning	
GENERAL OBJECTIVE 2.0: Understand consumption, savings and investment						
3–4	2.1 Explain savings and the consumption theory 2.2 State the factors affecting the level of aggregate	• Discuss savings and the consumption theory • Explain the factors affecting the level of aggregate	Textbooks, e-materials, computer and projector.	• Retrieve investment, consumption and savings data for the last 10 years. • Calculate the mean investment,	Guide students to: • Retrieve investment, consumption and savings data for the last 10 years; calculate the mean	NBS agricultural GDP data, aggregate demand data, Keynesian multiplier calculation

	consumption and savings 2.3 Explain the theories of consumption 2.4 Explain investment and why people invest 2.5 State the factors affecting investments	consumption and savings • Describe the theories of consumption • Discuss investment and why people invest • Explain the factors affecting investments • Explain the Keynesian multiplier and how agribusiness investment contributes to national income growth		consumption and savings for the period •Establish a relationship among the three variables. •Record correlation or trend observed between investment, consumption and savings •State the implications of the relationships to the national economy. •Record two implications for the agricultural sector •Prepare a summary note on how current consumption and savings trends affect agribusiness investment opportunities in Nigeria	investment, consumption and savings for the period •Establish a relationship among the three variables; record correlation or trend observed between investment, consumption and savings •State the implications of the relationships to the national economy; record two implications for the agricultural sector •Prepare a summary note on how current consumption and savings trends affect agribusiness investment opportunities in Nigeria	worksheet, income elasticity guide, national income analysis summary template, projector.
GENERAL OBJECTIVE 3.0: Understand unemployment and the concept of full employment						
5–6	3.1 State the theory of unemployment 3.2 Explain the various types of unemployment	• Discuss the theory of unemployment • Explain the various types of unemployment	Textbooks, e-materials, computer and projector.	• Retrieve data on Nigeria's unemployment rate for the last 10 years from NBS.	Guide students to: • Retrieve data on Nigeria's unemployment rate for the last 10 years	CBN and NBS unemployment data, gender disaggregated unemployment

	3.3 Define full employment and how it is achieved in an economy	• Explain full employment and how it is achieved in an economy		• Record each year, unemployment rate and the predominant type of unemployment • Carry out a gender analysis on the unemployment data for three sectors: agriculture and any other two. • Record unemployment rate by gender for each sector • Identify the implications of the analysis on the country's agricultural sector. • Record two policy or agribusiness management implications • Prepare a one-page unemployment analysis brief for the Nigerian agricultural sector. • Record trend, gender pattern and one recommended agribusiness response	from NBS; record each year, unemployment rate and the predominant type of unemployment • Carry out a gender analysis on the unemployment data for three sectors: agriculture and any other two; record unemployment rate by gender for each sector • State the implications of the analysis on the country's agricultural sector; record two policy or agribusiness management implications • Prepare a one-page unemployment analysis brief for the Nigerian agricultural sector. • Record trend, gender pattern and one recommended agribusiness response	data guide, sector unemployment comparison template, agricultural unemployment analysis brief template, projector.

GENERAL OBJECTIVE 4.0: Know money supply and price level; demand and supply of money						
7–9	4.1 Explain the Quantity Theory of Money 4.2 Explain the relationship between the supply of money and the general price level 4.3 Explain the reasons for the desire to hold money 4.4 Explain the macroeconomic principles of demand and supply of money 4.5 Explain the Liquidity Preference Theory 4.6 Explain the Loanable Funds Theory 4.7 Explain the Investment Savings (IS) and Liquidity Preference-Money Supply (LM) curves and their applications 4.8 Explain the meaning and importance of interest, profit and economic rent	• Discuss the Quantity Theory of Money • Explain the relationship between the supply of money and the general price level • Discuss the macroeconomic principles of demand and supply of money • Explain the reasons for the desire to hold money • Discuss the Liquidity Preference Theory • Discuss the Loanable Funds Theory • Discuss meaning of the IS and LM curves and their applications • Discuss the meaning and importance of interest, profit and economic rent	Textbooks, e-materials, computer and projector, Quantity Theory of Money guide, IS-LM curve diagram, liquidity preference and loanable funds theory guide.	•Use money supply and price data for the last ten years from CBN. •Plot money supply against price level on a graph and describe the relationship observed •Create an IS-LM curve using provided data. •Determine the equilibrium point of the economy and record the equilibrium interest rate and income level •Calculate the real interest rate for three consecutive years using the Fisher equation; record nominal rate, inflation rate and real interest rate for each year •Identify how a change in money supply in one year affected the general	Guide students to: •Use money supply and price data for the last ten years from CBN. •Plot money supply against price level on a graph and describe the relationship observed •Create an IS-LM curve using provided data; determine the equilibrium point of the economy and record the equilibrium interest rate and income level •Calculate the real interest rate for three consecutive years using the Fisher equation; record nominal rate, inflation rate and real interest rate for each year •Identify how a change in money supply in one year affected the general	CBN money supply and price level data, IS-LM curve construction guide, Fisher equation worksheet, money supply and price relationship graph template, projector, smartphones, field notebooks.

				price level. • Record money supply change, direction of price movement and one agribusiness input cost implication	price level; record money supply change, direction of price movement and one agribusiness input cost implication	
GENERAL OBJECTIVE 5.0: Understand monetary and fiscal policies analysis in agribusiness						
10 – 13	5.1 Describe the role of the CBN in the Nigerian monetary system 5.2 Explain the importance of CBN in agribusiness finance 5.3 Explain CBN monetary policy instruments: monetary policy rate, cash reserve ratio and their effect on agribusiness credit 5.4 Describe how interest rate changes affect agribusiness borrowing costs and investment decisions 5.5 Explain how CBN monetary policy affects agricultural commodity prices and agribusiness input costs 5.6 Describe how agribusiness managers monitor and respond to	• Describe Nigerian fiscal policy instruments with agribusiness environment effect examples • Explain federal agricultural budget allocation with agribusiness development impact examples • Describe applicable agribusiness taxes with VAT, CIT and import duty examples • Explain agricultural subsidy programmes with fertiliser, seed and fuel rationale and effectiveness examples • Describe agribusiness tax and	CBN monetary policy instruments guide, interest rate and agribusiness credit guide, commodity price and monetary policy guide, CBN publications, Nigerian fiscal policy guide, federal agricultural budget data, agribusiness taxation guide, Nigerian agricultural subsidy guide, projector.	• Research the current CBN monetary policy rate. • Record current rate, last change, direction of change and one implication for agribusiness borrowing cost • Analyse how a two-percent rise in lending rate affects an agribusiness loan. • Record loan amount, old interest cost, new interest cost and change in annual repayment • Assess CBN monetary policy for the past year. • Record two policy changes, stated objective of each and one effect on	Guide students to: • Research the current CBN monetary policy rate; record current rate, last change, direction of change and one implication for agribusiness borrowing cost • Analyse how a two-percent rise in lending rate affects an agribusiness loan; record loan amount, old interest cost, new interest cost and change in annual repayment • Assess CBN monetary policy for the past year; record two policy changes, stated objective of each and one effect	CBN monetary policy data, loan interest cost calculation worksheet, CBN policy announcement guide, agribusiness budget inflation impact template, monetary policy response plan template, federal agricultural budget data, agribusiness tax calculation worksheet, Nigerian agricultural subsidy guide, projector, smartphones, field notebooks.

	monetary policy changes in Nigeria 5.7 Describe Nigerian fiscal policy: government expenditure, taxation and borrowing and their effect on the agribusiness environment 5.8 Explain how federal agricultural budget allocations affect agribusiness development in Nigeria 5.9 Describe the taxes applicable to Nigerian agribusiness enterprises: VAT, company income tax and import duties 5.10 Explain Nigerian agricultural subsidy programmes: fertiliser, seed and fuel subsidies — their rationale, cost and effectiveness 5.11 Describe how agribusiness enterprises plan for changes in government taxation and subsidy policy	subsidy policy planning with enterprise response examples • Discuss how agribusiness managers monitor and respond to monetary policy changes in Nigeria • Explain Nigerian fiscal policy: government expenditure, taxation and borrowing and their effect on the agribusiness environment • Discuss how federal agricultural budget allocations affect agribusiness development in Nigeria • Explain the taxes applicable to Nigerian agribusiness enterprises: VAT, company income tax and import duties • Explain Nigerian agricultural subsidy programmes:		agribusiness credit or input prices •Calculate how current inflation affects one agribusiness enterprise annual budget. •Record three cost items, inflation rate applied, cost increase per item and total budget impact •Prepare a monetary policy response plan for one agribusiness enterprise. •Record current MPR, credit risk, two actions to manage borrowing costs and one alternative finance source •Research the Nigerian federal agricultural budget for the most recent year. •Record total budget, agricultural allocation, percentage share and one priority	on agribusiness credit or input prices •Calculate how current inflation affects one agribusiness enterprise annual budget; record three cost items, inflation rate applied, cost increase per item and total budget impact •Prepare a monetary policy response plan for one agribusiness enterprise; record current MPR, credit risk, two actions to manage borrowing costs and one alternative finance source •Research the Nigerian federal agricultural budget for the most recent year; record total budget, agricultural allocation, percentage share and one priority programme funded •Calculate the tax burden for one	

		fertiliser, seed and fuel subsidies — their rationale, cost and effectiveness • Discuss how agribusiness enterprises plan for changes in government taxation and subsidy policy		programme funded •Calculate the tax burden for one agribusiness enterprise. •Record applicable taxes, rates, taxable amounts and total annual tax liability as percentage of revenue •Analyse how removal of one agricultural subsidy would affect one agribusiness enterprise. •Record subsidy value received, cost increase if removed and one management response	agribusiness enterprise; record applicable taxes, rates, taxable amounts and total annual tax liability as percentage of revenue •Analyse how removal of one agricultural subsidy would affect one agribusiness enterprise. •Record subsidy value received, cost increase if removed and one management response	
GENERAL OBJECTIVE 6.0: Understand inflation and its management						
14–15	6.1 Explain inflation 6.2 Explain the types and causes of inflation 6.3 Explain the effect of inflation on the economy and how it affects agribusiness enterprises 6.4 Explain the control measures of inflation	• Discuss inflation and the types, causes and control measures of inflation • Discuss the effect of inflation on the economy and how it affects agribusiness enterprises • Explain the control	Textbooks, e-materials, computer and projector, inflation types and causes guide, Nigerian inflation data, CBN inflation management policy guide.	•Collect price data for one specific agricultural commodity for the past 12 months. •Plot the data on a graph and calculate the inflation rate for the commodity •Determine the type	Guide students to: •Collect price data for one specific agricultural commodity for the past 12 months; plot the data on a graph and calculate the inflation rate for the commodity	Agricultural commodity price data, inflation rate calculation worksheet, inflation type classification guide, agribusiness inflation effect analysis template,

		measures of inflation with Nigerian policy examples		of inflation affecting the commodity. • Record the evidence from the data that supports the classification • State two effects of the observed inflation rate on agribusiness enterprises dealing in the commodity. • Record each effect and one management response • Identify one CBN or government measure used to control inflation in the period reviewed. • Record the measure, objective and effectiveness based on the price data collected	• Determine the type of inflation affecting the commodity; record the evidence from the data that supports the classification • State two effects of the observed inflation rate on agribusiness enterprises dealing in the commodity; record each effect and one management response • Identify one CBN or government measure used to control inflation in the period reviewed. • Record the measure, objective and effectiveness based on the price data collected	CBN inflation management policy guide, projector, smartphones, field notebooks.

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

PRODUCTION ECONOMICS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: PRODUCTION ECONOMICS	**COURSE CODE: ABM 416**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge of production economics covering agricultural resources, production functions, production relationships, cost minimisation, revenue, profit maximisation and production planning in Nigerian agribusiness.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand agricultural resource analysis in agribusiness production; 2.0 Understand the organisation of production in agribusiness; 3.0 Understand production functions and factor-product relationships in agribusiness; 4.0 Understand factor-factor and product-product production relationships; 5.0 Know cost functions and cost minimisation in agribusiness; 6.0 Know revenue, profit maximisation and production planning in agribusiness.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: PRODUCTION ECONOMICS	**COURSE CODE: ABM 416**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge of production economics covering agricultural resources, production functions, production relationships, cost minimisation, revenue, profit maximisation and production planning in Nigerian agribusiness.		
GENERAL OBJECTIVE 1.0: Understand agricultural resource analysis in agribusiness production		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1– 2	1.1 Describe agricultural resources used in Nigerian agribusiness: land, labour, capital, water and management 1.2 Explain the principles of resource use in agribusiness: efficiency, substitutability and complementarity 1.3 Define resource	•Discuss agricultural resources; explain each with Nigerian agribusiness examples •Explain resource use principles — efficiency, substitutability and complementarity — with agribusiness examples •Define productivity; explain returns to scale with Nigerian agribusiness enterprise examples	Agricultural resource management guide, production efficiency textbook, whiteboard, projector.	•Classify the agricultural resources used in one local agribusiness. •Record each resource, quantity used, estimated cost and contribution to output •Calculate partial factor productivity for two resources in one agribusiness. •Record resource, output, input quantity, productivity ratio and interpretation	Guide students to: •Classify the agricultural resources used in one local agribusiness; record each resource, quantity used, estimated cost and contribution to output •Calculate partial factor productivity for two resources in one agribusiness;	Agricultural resource classification guide, partial factor productivity worksheet, technical efficiency assessment guide, returns to scale guide, resource use analysis template, calculator, field notebooks,

	productivity and explain returns to scale — increasing, constant and decreasing — with agribusiness examples 1.4 Explain technical efficiency and economic efficiency in agribusiness production 1.5 Describe the transformation period of resources in agricultural production and its significance for agribusiness planning	• Explain technical and economic efficiency with Nigerian agribusiness comparison examples • Explain transformation period with Nigerian crop and livestock production examples		• Assess the technical efficiency of one local agribusiness. • Record observed output, maximum possible output, efficiency score and one improvement action • Classify the returns to scale for one agribusiness at two output levels. • Record inputs, outputs, scale type identified and decision implication • Prepare a one-page resource use analysis for one Nigerian agribusiness. • Rcord all resources, efficiency assessment and two resource management recommendations	record resource, output, input quantity, productivity ratio and interpretation • Assess the technical efficiency of one local agribusiness; record observed output, maximum possible output, efficiency score and one improvement action • Classify the returns to scale for one agribusiness at two output levels; record inputs, outputs, scale type identified and decision implication • Prepare a one-page resource use analysis for one Nigerian agribusiness; record all resources, efficiency assessment and	

					two resource management recommendations	
GENERAL OBJECTIVE 2.0: Understand the organisation of production in agribusiness						
3-5	2.1 Define the farm-firm 2.2 Explain farm-firm role as the basic production and business unit in Nigerian agribusiness 2.3 Describe types of farm organisation in Nigeria: family farm, cooperative farm, state farm, group farming and research farm 2.4 Explain forms of business organisation in agribusiness: sole proprietorship, partnership and limited liability company — their features, advantages and limitations 2.5 Explain how the type of farm and business	• Explain farm-firm; explain production and business unit roles with Nigerian examples • Enumerate Nigerian farm organisation types with examples of each • Explain sole proprietorship, partnership and limited liability company with agribusiness examples for each • Explain how organisation type affects production, resource access and profit distribution with examples • Explain selection criteria for business organisation form with new agribusiness startup examples	Farm and business organisation guide, Nigerian agribusiness organisation case studies, whiteboard, projector.	• Visit or research one Nigerian agribusiness. • Identify its farm organisation type, business registration form, decision-making process and one advantage of its chosen form • Compare two Nigerian agribusinesses with different organisation types. • Record organisation type, ownership structure, resource access, profit distribution and one limitation for each • Select the most appropriate business organisation form for one proposed agribusiness. • Record rationale, legal requirements, capital implications and governance structure • Prepare a business	Guide students to: • Visit or research one Nigerian agribusiness; identify its farm organisation type, business registration form, decision-making process and one advantage of its chosen form • Compare two Nigerian agribusinesses with different organisation types; record organisation type, ownership structure, resource access, profit distribution and one limitation for each • Select the most appropriate business organisation form for one proposed	Farm and business organisation guide, Nigerian agribusiness case studies, business organisation comparison template, business profile template, field notebooks, smartphones.

	organisation affects production decisions, resource access and profit distribution 2.6 Describe how to select the most appropriate business organisation form for a proposed Nigerian agribusiness enterprise			organisation profile for one local agribusiness. • Record organisation type, registration status, management structure and two improvement recommendations • Present one Nigerian agribusiness organisation case study to the class. • Create presentation slides to explain organisation type, advantages, challenges and one lesson for new agribusiness entrepreneurs.	agribusiness; record rationale, legal requirements, capital implications and governance structure • Prepare a business organisation profile for one local agribusiness; record organisation type, registration status, management structure and two improvement recommendations • Present one Nigerian agribusiness organisation case study to the class. • Create presentation slides to explain organisation type, advantages, challenges and one lesson for new agribusiness entrepreneurs.	
GENERAL OBJECTIVE 3.0: Understand production functions and factor-product relationships in agribusiness						
6-7	3.1 Define the production	• Explain production function; describe	Production economics	• Calculate TP, AP and MP for one	Guide students to: • Calculate TP, AP	Input-output data, TP AP MP

	function and production function curve 3.2 Explain the production function types used in agribusiness: linear, quadratic, power and Cobb-Douglas 3.3 Explain total product (TP), average product (AP) and marginal product (MP) and how they are derived from the production function 3.4 Explain the law of diminishing returns, the three stages of production and the rational region for agribusiness input decisions 3.5 Explain the factor-product relationship: how changes in one variable input affect output and	linear, quadratic, power and Cobb-Douglas types with agribusiness examples • Explain TP, AP and MP; demonstrate derivation from production function data • Explain diminishing returns and three production stages; identify rational region with agribusiness examples • Explain factor-product relationship with input-output response curve examples from Nigerian agribusiness • Explain VMP rule; demonstrate optimal input determination for one agribusiness input	textbook, production function and TP AP MP calculation worksheets, VMP rule guide, graph paper, calculator, whiteboard, projector.	agribusiness variable input at six levels using provided data. • Record all values and identify where diminishing returns begin • Plot TP, AP and MP curves on graph paper. • Label all three production stages, identify the rational region and state the recommended input range • Identify the optimal fertiliser or feed application rate for one Nigerian agribusiness using the VMP rule. • Record input price, output price, VMP at each level and profit-maximising input quantity • Estimate a simple linear production function for one agribusiness using provided input-output data. • Record estimated	and MP for one agribusiness variable input at six levels using provided data; record all values and identify where diminishing returns begin • Plot TP, AP and MP curves on graph paper; label all three production stages, identify the rational region and state the recommended input range • Identify the optimal fertiliser or feed application rate for one Nigerian agribusiness using the VMP rule; record input price, output price, VMP at each level and profit-maximising input quantity • Estimate a simple linear production function for one	calculation worksheet, VMP rule worksheet, production function estimation guide, Factor-product analysis report template, Graph paper, Calculator, Field notebooks, Smartphones.

	how it guides input use decisions 3.6 Describe how to use the value of marginal product (VMP) rule to determine the optimal level of variable input in agribusiness			parameters and interpret the slope coefficient • Prepare a factor-product analysis report for one agribusiness. • Record input, TP, AP and MP at each level, optimal input identified and one management recommendation	agribusiness using provided input-output data; record estimated parameters and interpret the slope coefficient • Prepare a factor-product analysis report for one agribusiness. • Record input, TP, AP and MP at each level, optimal input identified and one management recommendation	
GENERAL OBJECTIVE 4.0: Understand factor-factor and product-product production relationships						
8-9	4.1 Explain the factor-factor relationship: how two variable inputs substitute for each other to produce a given output and how to identify the least-cost input combination 4.2 Describe the isoquant and the marginal rate of	• Explain factor-factor relationship with isoquant and input substitution examples from Nigerian agribusiness • Describe isoquant and MRTS; demonstrate MRTS calculation for two agribusiness inputs • Explain product-product relationship	Production relationships guide, isoquant and production possibility curve diagrams, graph paper, calculator, whiteboard, projector.	• Draw an isoquant for one agribusiness using two variable inputs. • Record input combinations, label the isoquant and identify the least-cost input combination • Calculate the MRTS between two inputs at three points on an isoquant. • Record each MRTS value and interpret the	Guide students to: • Draw an isoquant for one agribusiness using two variable inputs; record input combinations, label the isoquant and identify the least-cost input combination • Calculate the MRTS between two inputs at three points on an	Isoquant drawing guide, MRTS calculation worksheet, production possibility curve guide, gross margin comparison worksheet, production relationship analysis template, graph paper, calculator, field notebooks,

	technical substitution (MRTS) as tools for factor-factor analysis in agribusiness 4.3 Explain the product-product relationship: how allocating fixed resources between two enterprises determines the optimal enterprise mix 4.4 Describe the production possibility curve and how it guides enterprise diversification decisions in Nigerian agribusiness 4.5 Explain how production relationships guide practical input mix and enterprise mix decisions in Nigerian agribusiness 4.6 Explain types of	with enterprise mix and resource allocation examples • Describe production possibility curve; demonstrate how it guides enterprise diversification decisions • Explain practical application of production relationships to Nigerian agribusiness input and enterprise decisions • Discuss types of product-product relationship: competitive, supplementary, complimentary and joint products		substitution trend • Draw a production possibility curve for one agribusiness choosing between two enterprises; record resource constraints, output combinations and identify the optimal enterprise mix • Compare two enterprise combinations on the production possibility curve. • Record total gross margin for each combination and recommend the more profitable mix • Prepare a production relationship analysis for one Nigerian agribusiness. • Record which relationship applies, the graph prepared, key finding and one management decision supported	isoquant; record each MRTS value and interpret the substitution trend • Draw a production possibility curve for one agribusiness choosing between two enterprises; record resource constraints, output combinations and identify the optimal enterprise mix • Compare two enterprise combinations on the production possibility curve; record total gross margin for each combination and recommend the more profitable mix • Prepare a production relationship analysis for one Nigerian agribusiness. • Record which relationship applies, the graph prepared, key finding and one	smartphones.

	product-product relationship: competitive, supplementary, complimentary and joint products				management decision supported	
GENERAL OBJECTIVE 5.0: Know cost functions and cost minimisation in agribusiness						
10–12	5.1 Define cost of production in agribusiness and 5.2 Describe cost functions: total cost (TC), fixed cost (FC), variable cost (VC), average variable cost (AVC), average total cost (ATC) and marginal cost (MC). 5.3 Explain sources of cost in agribusiness: inputs, transportation, utilities, rent, labour and depreciation and how each behaves with output 5.4 Explain the principle of cost minimisation in	• Explain cost functions; explain FC, VC, TC, AVC, ATC and MC with agribusiness behaviour at different output levels • Discuss agribusiness cost sources with Nigerian enterprise examples and explain fixed versus variable behaviour • Explain cost minimisation using least-cost combination rule; demonstrate with agribusiness example • Explain economies and diseconomies of scale with Nigerian agribusiness enterprise size	Cost and cost functions guide, cost calculation worksheet, least-cost combination guide, economies of scale guide, cost reduction analysis template, calculator, whiteboard, projector.	• Calculate FC, VC, AVC, TC, ATC and MC for one Nigerian agribusiness at five output levels. • Record all values and identify the output level where ATC is minimised • Plot ATC and MC curves from the calculated data. • Identify break-even output, minimum-cost output and their management implications • Apply the least-cost input combination rule to one agribusiness. • Record two input prices, marginal products, cost-minimising ratio and recommended input combination	Guide students to: • Calculate FC, VC, AVC, TC, ATC and MC for one Nigerian agribusiness at five output levels; record all values and identify the output level where ATC is minimised • Plot ATC and MC curves from the calculated data; identify break-even output, minimum-cost output and their management implications • Apply the least-cost input combination rule to one agribusiness; record two input prices, marginal products, cost-minimising	Cost data for five output levels, cost calculation worksheet, graph paper, least-cost combination worksheet, LRAC guide, cost reduction analysis template, calculator, field notebooks, smartphones.

	agribusiness using the least-cost input combination rule 5.5 Explain economies and diseconomies of scale and their implications for agribusiness enterprise size decisions in Nigeria 5.6 Describe how cost analysis identifies cost reduction opportunities and guides pricing decisions in Nigerian agribusiness	examples • Demonstrate cost analysis for identifying cost reduction and pricing decisions in one Nigerian agribusiness		• Assess whether one Nigerian agribusiness experiences economies or diseconomies of scale. • Record LRAC at two output levels and recommend the appropriate scale of operation • Identify three cost reduction opportunities from a cost analysis of one local agribusiness. • Record cost area, current cost, cause and one recommended reduction action for each	ratio and recommended input combination • Assess whether one Nigerian agribusiness experiences economies or diseconomies of scale; record LRAC at two output levels and recommend the appropriate scale of operation • Identify three cost reduction opportunities from a cost analysis of one local agribusiness. • Record cost area, current cost, cause and one recommended reduction action for each	
GENERAL OBJECTIVE 6.0: Know revenue, profit maximisation and production planning in agribusiness						
13– 15	6.1 Define total revenue, average revenue and marginal revenue. 6.2 Explain revenue sources in	• Explain TR, AR and MR; explain revenue sources and TR-AR-MR relationship to TP-AP-MP with agribusiness data	Revenue and profit maximisation guide, TR TC profit calculation	• Calculate TR, TC and profit for one agribusiness at six output levels. • Identify the profit-maximising output	Guide students to: • Calculate TR, TC and profit for one agribusiness at six output levels; identify the profit-	TR TC profit calculation worksheet, MR equals MC rule worksheet, Gross and net profit

	agribusiness and how TR, AR and MR relate to TP, AP and MP 6.3 Explain the profit function in agribusiness and how to determine the profit-maximising output using the MR equals MC rule 6.4 Define gross profit and net profit	• Explain profit function and MR equals MC rule; demonstrate profit-maximising output determination for one agribusiness • Define gross and net profit; explain input and output price change effects on the profit-maximising decision	worksheet, MR equals MC rule guide, calculator, whiteboard, projector.	using the MR equals MC rule and verify by checking total profit at each level • Calculate gross profit and net profit for one agricultural production enterprise. • Record total revenue, variable costs, gross profit, fixed costs and net profit for the season	maximising output using the MR equals MC rule and verify by checking total profit at each level • Calculate gross profit and net profit for one agricultural production enterprise. • Record total revenue, variable costs, gross profit, fixed costs and net profit for the season	worksheet, Complete enterprise budget template, Graph paper, Calculator, Field notebooks.

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

AGRIBUSINESS STATISTICS AND DECISION SUPPORT SYSTEMS

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS STATISTICS AND DECISION SUPPORT SYSTEMS	**COURSE CODE: ABM 417**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in applied statistics and decision support systems for evidence-based agribusiness management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand descriptive statistics in agribusiness;; 2.0 Know probability and sampling in agribusiness; 3.0 Understand inferential statistics for agribusiness decisions ; 4.0 Understand regression and correlation analysis in agribusiness ; 5.0 Know decision support tools and systems; 6.0 Understand statistical software for agribusiness data analysis.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS STATISTICS AND DECISION SUPPORT SYSTEMS	**COURSE CODE: ABM 417**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: I	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in applied statistics and decision support systems for evidence-based agribusiness management.		
GENERAL OBJECTIVE 1.0: Understand descriptive statistics in agribusiness		

	THEORETICAL CONTENT			PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1–2	1.1 Explain descriptive statistics and types of data used in agribusiness: nominal, ordinal, interval and ratio 1.2 Explain measures of central tendency: mean, median and mode and their application in agribusiness 1.3 Describe measures of dispersion: range, variance and standard deviation	• Discuss descriptive statistics and data types with agribusiness examples for each • Explain measures of central tendency; demonstrate calculation for an agribusiness dataset • Explain measures of dispersion; demonstrate calculation for an agribusiness dataset • Demonstrate frequency distribution	Agribusiness datasets, calculator, Excel or Google Sheets, graph paper, data presentation guide, Computer, projector.	• Calculate mean, median and mode manually and using statistical software for one agribusiness price dataset. • Record all calculation steps and interpret results • Calculate range, variance and standard deviation for one agribusiness yield dataset. • Record all steps and interpret variability	Guide students to: • Calculate mean, median and mode manually and using statistical software for one agribusiness price dataset; record all calculation steps and interpret results • Calculate range, variance and standard deviation for one agribusiness yield	Agribusiness price and yield datasets, calculator, Excel or Google Sheets, graph paper, statistical software, field notebooks.

	in agribusiness data 1.4 Explain frequency distributions and how to construct histograms and frequency polygons 1.5 Describe data presentation methods used in agribusiness reporting: tables, charts and graphs	construction and histogram preparation • Describe and demonstrate data presentation methods for agribusiness reports		• Construct a frequency distribution and histogram for one agribusiness dataset. • Record all steps and describe the distribution • Prepare three data presentation formats for one agribusiness dataset: a table, a bar chart and a line graph • Interpret the descriptive statistics of one agribusiness dataset. • Record key findings and two management implications	dataset; record all steps and interpret variability • Construct a frequency distribution and histogram for one agribusiness dataset; record all steps and describe the distribution • Prepare three data presentation formats for one agribusiness dataset: a table, a bar chart and a line graph • Interpret the descriptive statistics of one agribusiness dataset. • Record key findings and two management implications	
GENERAL OBJECTIVE 2.0: Know probability and sampling in agribusiness						
3–4	2.1 Explain the concept of probability and its application in agribusiness risk assessment	• Explain probability with agribusiness risk examples • Describe probability distributions with	Probability guide, probability distribution examples,	•Calculate the probability of three agribusiness outcomes using simple probability rules. •Record all steps and	Guide students to: •Calculate the probability of three agribusiness outcomes using	Probability calculation guide Sampling methods scenarios,

	2.2 Describe probability distributions used in agribusiness: normal, binomial and Poisson 2.3 Describe sampling methods used in agribusiness surveys: random, purposive, stratified and cluster 2.4 Explain how to determine sample size for an agribusiness market survey 2.5 Describe how sampling errors affect agribusiness survey results	agribusiness application examples for each • Describe sampling methods with agribusiness survey examples for each • Demonstrate sample size determination for one agribusiness market survey • Explain sampling errors with agribusiness survey examples	sampling methods guide, sample size determination worksheet, sampling error guide, projector.	interpretation •Select the appropriate sampling method for three agribusiness survey scenarios; record method, justification and one limitation •Calculate the sample size for one agribusiness market survey. •Record population, confidence level, margin of error and final sample size •Design a stratified random sample for one agribusiness producer survey. •Record strata, proportional allocation and final sample per stratum •Identify two sampling errors in a provided agribusiness survey report. •Record error type, cause and recommended correction	simple probability rules; record all steps and interpretation •Select the appropriate sampling method for three agribusiness survey scenarios; record method, justification and one limitation •Calculate the sample size for one agribusiness market survey; record population, confidence level, margin of error and final sample size •Design a stratified random sample for one agribusiness producer survey; record strata, proportional allocation and final sample per stratum •Identify two sampling errors in a provided agribusiness survey report. •Record error type,	Sample size determination worksheet, stratified sampling design template, agribusiness survey report with errors, field notebooks.

					cause and recommended correction	
GENERAL OBJECTIVE 3.0: Understand inferential statistics for agribusiness decisions						
5–6	3.1 Explain hypothesis testing and its application in agribusiness research 3.2 Describe the t-test and its use in comparing agribusiness groups or treatments 3.3 Describe chi-square test and its application in agribusiness categorical data analysis 3.4 Explain analysis of variance (ANOVA) and its use in agribusiness experiment analysis 3.5 Describe how to interpret statistical test results and make agribusiness decisions	• Explain hypothesis testing with a null and alternative hypothesis agribusiness example • Demonstrate t-test calculation for a price comparison between two agribusiness markets • Demonstrate chi-square test for a consumer preference agribusiness survey • Demonstrate one-way ANOVA for a fertiliser treatment agribusiness experiment • Explain result interpretation and management decision application for each test	Hypothesis testing guide, agribusiness datasets for t-test, chi-square and ANOVA, statistical calculation guide, Excel or Google Sheets, projector.	• Formulate a null and alternative hypothesis for one agribusiness research problem. • Record hypothesis, test to be used and decision rule • Conduct a t-test to compare prices in two agribusiness markets. • Record all calculation steps, result and management decision • Conduct a chi-square test on one agribusiness consumer preference dataset. • Record all steps, result and management decision • Conduct a one-way ANOVA on one agribusiness yield experiment dataset. • Record all steps, F value, significance and conclusion • Interpret the results of	Guide students to: • Formulate a null and alternative hypothesis for one agribusiness research problem; record hypothesis, test to be used and decision rule • Conduct a t-test to compare prices in two agribusiness markets; record all calculation steps, result and management decision • Conduct a chi-square test on one agribusiness consumer preference dataset; record all steps, result and management decision • Conduct a one-way ANOVA on one agribusiness	Agribusiness price datasets, consumer preference datasets, yield experiment datasets, statistical calculation guide, Excel or Google Sheets, field notebooks.

				all three statistical tests; record the management implication of each test result for one agribusiness enterprise	yield experiment dataset. • Record all steps, F value, significance and conclusion • Interpret the results of all three statistical tests; record the management implication of each test result for one agribusiness enterprise	
GENERAL OBJECTIVE 4.0: Understand regression and correlation analysis in agribusiness						
7–9	4.1 Describe correlation analysis and how to measure the relationship between two agribusiness variables 4.2 Explain simple linear regression and its application in agribusiness forecasting 4.3 Describe multiple regression analysis and its use in agribusiness decision-making 4.4 Explain how to interpret regression	• Explain correlation; demonstrate calculation for one agribusiness variable pair • Demonstrate simple linear regression for agribusiness price or yield forecasting • Demonstrate multiple regression using Excel for one agribusiness dataset • Explain regression coefficient and R-squared interpretation with agribusiness examples • Demonstrate price	Agribusiness correlation datasets, regression datasets, Excel or Google Sheets, regression interpretation guide, projector.	• Calculate the correlation coefficient between two agribusiness variables. • Record all steps, result and interpretation of relationship strength • Conduct a simple linear regression on one agribusiness dataset. • Record equation, R-squared, coefficient interpretation and forecasted value • Conduct a multiple regression on one agribusiness dataset using Excel. • Record independent	Guide students to: • Calculate the correlation coefficient between two agribusiness variables; record all steps, result and interpretation of relationship strength • Conduct a simple linear regression on one agribusiness dataset; record equation, R-squared, coefficient	Agribusiness correlation and regression datasets, Excel or Google Sheets, Regression analysis report template Field notebooks.

	coefficients and R-squared in agribusiness analysis 4.5 Describe how to use regression analysis for price forecasting in agribusiness	forecasting using a simple linear regression model		variables, R-squared, coefficients and interpretation • Use a regression model to forecast agribusiness price for two future periods. • Record model, inputs and forecasted prices • Prepare a regression analysis report for one agribusiness. • Record method, results, interpretation and one management recommendation	interpretation and forecasted value • Conduct a multiple regression on one agribusiness dataset using Excel; record independent variables, R-squared, coefficients and interpretation • Use a regression model to forecast agribusiness price for two future periods; record model, inputs and forecasted prices • Prepare a regression analysis report for one agribusiness. • Record method, results, interpretation and one management recommendation	
GENERAL OBJECTIVE 5.0: Know decision support tools and systems						
10–11	5.1 Define a decision support system 5.2 Explain the decision support system	• Discuss DSS; explain components and role with Nigerian agribusiness examples	DSS guide, decision tree template, linear programming	•Construct a decision tree for one agribusiness investment decision. •Record decision nodes,	Guide students to: •Construct a decision tree for one agribusiness	Decision tree template, linear programming guide, sensitivity

	components and role in agribusiness 5.3 Describe decision trees and how to apply them to agribusiness investment decisions 5.4 Explain linear programming and its application in agribusiness resource allocation 5.5 Describe sensitivity analysis and its use in agribusiness decision-making under uncertainty 5.6 Explain how to use scenario analysis to support agribusiness strategic decisions	• Demonstrate decision tree construction for one agribusiness investment problem • Demonstrate linear programming formulation for one agribusiness resource allocation problem • Demonstrate sensitivity analysis for one agribusiness decision • Demonstrate scenario analysis for one agribusiness strategic decision	guide, sensitivity analysis worksheet, scenario analysis guide, projector.	chance nodes, probabilities, payoffs and optimal decision •Formulate a linear programming model for one agribusiness resource allocation problem. •Record objective function, constraints and solution •Conduct a sensitivity analysis on one agribusiness budget. •Record how profit changes when revenue falls by 15% and costs rise by 15% •Conduct a scenario analysis for one agribusiness enterprise. •Record optimistic, base and pessimistic scenarios with profit for each •Apply a DSS tool to one agribusiness decision. •Record decision problem, data used, tool output and management decision made	investment decision; record decision nodes, chance nodes, probabilities, payoffs and optimal decision •Formulate a linear programming model for one agribusiness resource allocation problem; record objective function, constraints and solution •Conduct a sensitivity analysis on one agribusiness budget; record how profit changes when revenue falls by 15% and costs rise by 15% •Conduct a scenario analysis for one agribusiness enterprise; record optimistic, base and pessimistic scenarios with profit for each •Apply a DSS tool to one agribusiness decision. •Record decision	analysis worksheet, scenario analysis template, DSS tool, field notebooks.

					problem, data used, tool output and management decision made	
GENERAL OBJECTIVE 6.0: Understand statistical software for agribusiness data analysis						
12–15	6.1 Describe statistical software packages used in agribusiness: Excel, SPSS and R 6.2 Explain how to enter, clean and manage agribusiness data in Excel 6.3 Describe how to conduct basic statistical analysis using Excel functions 6.4 Explain how to produce charts and visualisations for agribusiness reports using Excel 6.5 Describe how to interpret and communicate statistical findings to agribusiness stakeholders	• Describe statistical software with agribusiness application examples for each • Demonstrate agribusiness data entry, cleaning and management in Excel • Demonstrate basic statistical analysis using Excel functions: AVERAGE, STDEV, CORREL • Demonstrate chart and visualisation production in Excel for agribusiness reporting • Explain statistical findings communication with agribusiness stakeholder examples	Computers or smartphones with Excel, agribusiness datasets, Excel functions guide, chart production guide, statistical reporting guide, projector.	• Enter and clean one agribusiness dataset in Excel. • Record data entry steps, errors found and corrections made • Calculate descriptive statistics for the dataset using Excel functions. • Record mean, standard deviation, minimum and maximum for each variable • Run a correlation analysis between two variables in the dataset using Excel. • Record the correlation coefficient and interpretation • Produce charts for the agribusiness dataset: bar chart, line graph and scatter plot. • record chart type, variables plotted and key insight • Prepare a one-page	Guide students to: • Enter and clean one agribusiness dataset in Excel; record data entry steps, errors found and corrections made • Calculate descriptive statistics for the dataset using Excel functions; record mean, standard deviation, minimum and maximum for each variable • Run a correlation analysis between two variables in the dataset using Excel; record the correlation coefficient and interpretation • Produce charts for the agribusiness dataset: bar chart, line graph and	Computers or smartphones with Excel, agribusiness datasets, Excel functions guide, chart production guide, statistical analysis report template, field notebooks.

				statistical analysis report for one agribusiness dataset. • Record methods, key findings and two management recommendations	scatter plot; record chart type, variables plotted and key insight • Prepare a one-page statistical analysis report for one agribusiness dataset. • Record methods, key findings and two management recommendations	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

YEAR II – SEMESTER II

AGRIBUSINESS RISK MANAGEMENT AND INSURANCE

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS RISK MANAGEMENT AND INSURANCE	**COURSE CODE: ABM 421**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills in identifying, assessing and managing risks in agribusiness enterprises through insurance and risk mitigation strategies.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand risk concepts and the agribusiness risk environment; 2.0 Know risk identification and assessment in agribusiness; 3.0 Understand risk mitigation and control strategies in agribusiness; 4.0 Know agricultural insurance products and risk transfer; 5.0 Understand financial risk management in agribusiness.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS RISK MANAGEMENT AND INSURANCE	**COURSE CODE: ABM 421**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in identifying, assessing and managing risks in agribusiness enterprises through insurance and risk mitigation strategies.		
GENERAL OBJECTIVE 1.0: Understand risk concepts and the agribusiness risk environment		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1-3	1.1 Define risk and uncertainty 1.2 Describe types of agribusiness risks: production, market, financial, legal and human risks 1.3 Explain the importance of risk in agribusiness enterprise management 1.4 Explain the risk-return relationship and its implications for agribusiness	• Explain risk and uncertainty • Describe types of agribusiness risks: production, market, financial, legal and human risks • Explain the importance of risk in agribusiness enterprise management • Explain the risk-return relationship and its implications	Agribusiness risk types guide, risk-return relationship diagram, Nigerian agribusiness risk environment data, risk management value creation examples, projector.	• Classify ten agribusiness scenarios by risk type. • Record scenario, probability and potential impact • Assess the risk environment for one Nigerian agribusiness enterprise. • Record three key risks, sources and likely frequency • Calculate the expected loss for one agribusiness risk.	Guide students to: • Classify ten agribusiness scenarios by risk type; record scenario, probability and potential impact • Assess the risk environment for one Nigerian agribusiness enterprise; record three key risks, sources and likely frequency	Agribusiness risk classification worksheet, Risk environment assessment form, Expected loss calculation guide, Risk management value identification guide, Field notebooks.

	investment decisions 1.5 Describe the agribusiness risk environment in Nigeria: production, price volatility, individual generated and policy risks 1.6 Explain how risk management creates value for agribusiness enterprises	for agribusiness investment decisions • Describe the agribusiness risk environment in Nigeria: climate, price volatility and policy risks • Explain how risk management creates value for agribusiness enterprises		• Record probability, impact, expected loss and management implication • Identify how risk management adds value in one agribusiness enterprise. • Record three benefits and supporting evidence • Present the agribusiness risk environment assessment to the class. • Identify the three most critical risks and management implications	• Calculate the expected loss for one agribusiness risk; record probability, impact, expected loss and management implication • Identify how risk management adds value in one agribusiness enterprise; record three benefits and supporting evidence • Present the agribusiness risk environment assessment to the class. • Identify the three most critical risks and management implications	
GENERAL OBJECTIVE 2.0: Know risk identification and assessment in agribusiness						
4-6	2.1 Describe risk identification methods: checklists, interviews, SWOT and scenario	• Describe risk identification methods with agribusiness application examples for each	Risk identification methods guide, risk assessment guide, risk register template, probability-impact	• Identify ten to fifteen risks for one agribusiness enterprise using three identification methods. • Record risk method	Guide students to: • Identify ten to fifteen risks for one agribusiness enterprise using three	Risk identification methods guide, probability-impact matrix template, agribusiness risk register template,

	analysis in agribusiness 2.2 Explain qualitative and quantitative risk assessment methods in agribusiness 2.3 Describe how to prepare a risk register for an agribusiness enterprise 2.4 Explain probability-impact matrices and how to use them for risk prioritisation 2.5 Describe how to develop a risk profile for an agribusiness enterprise	• Explain qualitative and quantitative risk assessment with agribusiness examples • Demonstrate risk register preparation for one agribusiness enterprise • Demonstrate probability-impact matrix construction for one agribusiness • Demonstrate agribusiness risk profile development	matrix template, risk profile template, projector.	used and initial assessment • Assess ten identified risks using a probability-impact matrix. • Record probability, impact, risk score and priority level • Prepare a risk register for one agribusiness enterprise. • Record all risks with description, owner, probability, impact, score and response • Develop a risk profile; record top five risks with probability and aggregate risk exposure • Present the risk register to the class. • Present the three highest priority risks and recommended responses	identification methods; record risk method used and initial assessment • Assess ten identified risks using a probability-impact matrix; record probability, impact, risk score and priority level • Prepare a risk register for one agribusiness enterprise; record all risks with description, owner, probability, impact, score and response • Develop a risk profile; record top five risks with probability and aggregate risk exposure • Present the risk register to the class. • Present the three	risk profile template, field notebooks.

					highest priority risks and recommended responses	
GENERAL OBJECTIVE 3.0: Understand risk mitigation and control strategies in agribusiness						
7-9	3.1 Describe risk response strategies: mitigation, avoidance, reduction, transfer and acceptance in agribusiness 3.2 Explain how to develop a risk mitigation plan for an agribusiness enterprise 3.3 Describe operational risk controls: diversification, contract farming and forward pricing 3.4 Explain how technology reduces agribusiness operational risk: precision agriculture and monitoring systems 3.5 Describe how to monitor and review risk controls in an	•Describe risk response strategies with agribusiness examples for each •Demonstrate risk mitigation plan development for one agribusiness enterprise •Describe operational risk controls with Nigerian agribusiness examples •Explain technology-based risk reduction with precision agriculture and monitoring examples •Explain risk control monitoring and review procedure for agribusiness	Risk response strategies guide, risk mitigation plan template, operational risk controls guide, technology-based risk reduction guide, risk monitoring and review template, projector.	• Select the appropriate risk response strategy for five agribusiness risks. • Record risk, strategy, justification and expected risk reduction • Develop a risk mitigation plan for three high-priority agribusiness risks. • Record mitigation action, responsible person, timeline and cost • Evaluate one diversification strategy for one agribusiness. • Record current activities, proposed diversification, risk reduction and cost • Identify one technology tool that reduces a key agribusiness risk. • Rcord tool, risk addressed, implementation cost and	Guide students to: • Select the appropriate risk response strategy for five agribusiness risks; record risk, strategy, justification and expected risk reduction • Develop a risk mitigation plan for three high-priority agribusiness risks; record mitigation action, responsible person, timeline and cost • Evaluate one diversification strategy for one agribusiness; record current activities, proposed diversification, risk reduction and	Risk response strategies guide, risk mitigation plan template, diversification evaluation guide, risk technology tool research guide, risk control monitoring plan template, field notebooks.

	agribusiness enterprise			expected benefit • Prepare a risk control monitoring plan. • Record each control, monitoring frequency, indicator and review trigger	cost • Identify one technology tool that reduces a key agribusiness risk; record tool, risk addressed, implementation cost and expected benefit • Prepare a risk control monitoring plan. • Record each control, monitoring frequency, indicator and review trigger	
GENERAL OBJECTIVE 4.0: Know agricultural insurance products and risk transfer						
10-12	4.1 Define insurance 4.2 Describe types of agricultural insurance in Nigeria: crop, livestock, equipment and revenue insurance 4.3 Explain how agricultural insurance is priced: actuarial principles and premium	• Describe agricultural insurance types with Nigerian provider and product examples for each • Explain actuarial pricing; demonstrate premium calculation for one crop insurance product • Describe index-based insurance with weather index and area yield	Agricultural insurance types guide, premium calculation worksheet, index-based insurance guide, insurance claim procedure guide, NAIC and government insurance programme guide, projector.	• Research two agricultural insurance products available in Nigeria. • Record type, provider, coverage, premium and how to apply • Calculate the insurance premium for one crop enterprise. • Record sum insured, premium rate, deductible and net	Guide students to: • Research two agricultural insurance products available in Nigeria; record type, provider, coverage, premium and how to apply • Calculate the insurance premium for one crop enterprise; record	Agricultural insurance research guide, premium calculation worksheet, index-based insurance evaluation guide, mock insurance claim template, NAIC programme research guide, field notebooks.

	calculation 4.4 Describe index-based agricultural insurance and its application in Nigerian smallholder farming 4.5 Explain how to make an agricultural insurance claim: documentation, assessment and settlement 4.6 Describe government agricultural insurance programmes in Nigeria: National Agricultural Insurance Company (NAIC) and donor-supported schemes	examples from Nigeria • Explain insurance claim procedure with documentation and settlement examples • Describe NAIC and government programmes with eligibility and coverage examples		premium • Evaluate the suitability of index-based insurance for one Nigerian smallholder farming system. • Record advantages, limitations and suitability • Prepare a mock insurance claim for one agricultural loss event. • Record event description, documentation required, claimed amount and calculation • Research the NAIC crop insurance programme. • Record eligibility, coverage, premium subsidy, how to apply and claims procedure	sum insured, premium rate, deductible and net premium • Evaluate the suitability of index-based insurance for one Nigerian smallholder farming system; record advantages, limitations and suitability • Prepare a mock insurance claim for one agricultural loss event; record event description, documentation required, claimed amount and calculation • Research the NAIC crop insurance programme. • Record eligibility, coverage, premium subsidy, how to apply and claims procedure	
GENERAL OBJECTIVE 5.0: Understand financial risk management in agribusiness						

13-15	5.1 Define financial risk management 5.2 Describe financial risks in agribusiness: interest rate, currency, credit and liquidity risks 5.3 Explain how to manage interest rate risk using fixed-rate financing in agribusiness 5.4 Describe how to manage currency risk in agribusiness export and import transactions 5.5 Explain credit risk management: creditworthiness assessment and credit limits in agribusiness 5.6 Describe how to manage liquidity risk using cash flow forecasting in agribusiness	• Describe financial risk types with agribusiness examples for each • Explain interest rate risk management with fixed versus variable rate financing examples • Describe currency risk management with forward contracts and natural hedging in agribusiness • Explain credit risk management with creditworthiness assessment and credit limit examples • Explain liquidity risk management; demonstrate cash flow forecasting for one agribusiness	Financial risk types guide, interest rate risk management guide, currency risk management guide, creditworthiness assessment form, cash flow forecasting template, projector.	• Identify the financial risks of one agribusiness enterprise. • Record risk type, source, probability, impact and current control • Calculate the interest rate risk impact on one agribusiness loan if rates increase by 3%; • Record current payment, new payment, change and management action • Calculate the currency risk exposure for one agribusiness export transaction. • Record transaction value, exchange rate, risk amount and one hedging option • Assess the creditworthiness of one agribusiness customer using the 5Cs. • Record assessment and recommended credit limit • Prepare a 12-month cash flow forecast to identify liquidity risk	Guide students to: • Identify the financial risks of one agribusiness enterprise; record risk type, source, probability, impact and current control • Calculate the interest rate risk impact on one agribusiness loan if rates increase by 3%; record current payment, new payment, change and management action • Calculate the currency risk exposure for one agribusiness export transaction; record transaction value, exchange rate, risk amount and one hedging option • Assess the creditworthiness of one agribusiness customer using the 5Cs; record assessment and	Financial risk identification form, interest rate risk calculation guide, currency risk calculation worksheet, creditworthiness assessment form, 12-month cash flow forecast template, field notebooks.

				periods. • Record each month's cash balance and highlight any risk months	recommended credit limit • Prepare a 12-month cash flow forecast to identify liquidity risk periods. • Record each month's cash balance and highlight any risk months	
COURSE ASSESSMENT: Course Work: 10% Test/Assignments: 10% Practical: 40% Examination: 40%						

AGRIBUSINESS SME GROWTH AND MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS SME GROWTH AND MANAGEMENT	**COURSE CODE:** ABM 422	**CONTACT HOURS: 3** Hours/Week
YEAR: II SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL:** 1 Hour/Week
	PRE-REQUISITE:	**PRACTICAL: 2** Hours/Week
GOAL: This course is designed to equip students with knowledge and skills in Agribusiness SME growth and management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand SME development concepts and growth challenges in Nigerian agribusiness; 2.0 Understand growth strategies and scaling for agribusiness SMEs; 3.0 Know branding and marketing for agro-processing enterprises; 4.0 Understand agro-processing operations and quality management; 5.0 Understand SME formalisation and regulatory compliance; 6.0 Understand SME financing and investment for enterprise growth.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS SME GROWTH AND MANAGEMENT	COURSE CODE: ABM 422	CONTACT HOURS: 3 HOURS/WEEK
YEAR: II SEMESTER: II	CREDIT UNIT: 3	THEORETICAL: 1 HOUR/WEEK
	PRE-REQUISITE:	PRACTICAL: 2 HOURS/WEEK
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills in Agribusiness SME growth and management.		
GENERAL OBJECTIVE 1.0: Understand SME development concepts and growth challenges in Nigerian agribusiness		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES	SPECIFIC LEARNING OUTCOMES	TEACHER'S ACTIVITIES	RESOURCES
1-2	1.1 Define SMEs 1.2 Describe SMEs classification by turnover and employment in Nigeria 1.3 Describe the role of agribusiness SMEs in Nigeria's economy: employment, food security and export 1.4 Explain the common growth challenges facing agribusiness SMEs in Nigeria 1.5 Describe SME	• Explain SMEs; describe Nigerian classification with agribusiness examples • Describe agribusiness SME economic role with employment, food security and export data • Explain growth challenges with Nigerian agribusiness SME case examples • Describe SME growth stages with agribusiness enterprise examples at each stage	Nigerian SME classification guide, agribusiness SME economic role data, SME growth challenges guide, SME growth stages diagram, government and development support guide, projector.	• Classify five Nigerian agribusiness enterprises by SME category. • Record enterprise; annual turnover, employee count and category • Identify three growth challenges facing one Nigerian agribusiness SME. • Record each challenge, cause and one recommended solution • Determine the growth stage of one agribusiness	Guide students to: • Classify five Nigerian agribusiness enterprises by SME category; record enterprise, annual turnover, employee count and category • Identify three growth challenges facing one Nigerian agribusiness SME; record each challenge, cause	Nigerian SME classification guide, SME growth challenge identification guide, SME growth stages diagram, government SME programme research guide, field notebooks.

	growth stages: startup, growth, maturity and decline in agribusiness 1.6 Explain how government and development organisations support agribusiness SME growth in Nigeria	• Explain government and development support with SMEDAN, BOI and BOA examples		SME. • Record evidence of stage, key characteristics and next stage strategy • Research one government programme supporting agribusiness SME growth. • Record programme, eligibility, support type and how to apply • Present the SME growth analysis, current stage, key challenges and recommended growth actions to the class.	and one recommended solution • Determine the growth stage of one agribusiness SME; record evidence of stage, key characteristics and next stage strategy • Research one government programme supporting agribusiness SME growth; record programme, eligibility, support type and how to apply • Present the SME growth analysis, current stage, key challenges and recommended growth actions to the class.	
GENERAL OBJECTIVE 2.0: Understand growth strategy and scaling for agribusiness SMEs						
3-4	2.1 Describe growth strategies for agribusiness SMEs:	• Describe SME growth strategies with Nigerian agribusiness	SME growth strategies guide, three-year	• Develop a three-year growth plan for one agribusiness SME.	Guide students to: • Develop a three-year growth plan	Three-year SME growth plan template,

	organic growth, acquisition and strategic alliances 2.2 Explain how to develop a three-year growth plan for an agribusiness SME 2.3 Describe how to scale agribusiness operations: increasing production, expanding markets and adding products 2.4 Explain how to build organisational capacity for agribusiness SME growth: systems, staff and governance 2.5 Describe how to manage the transition from small enterprise to medium enterprise in agribusiness	examples for each • Demonstrate three-year growth plan development for one agribusiness SME • Describe agribusiness operation scaling strategies with production and market expansion examples • Explain organisational capacity building for growth with systems, staff and governance examples • Explain small-to-medium enterprise transition management with Nigerian agribusiness examples	growth plan template, operation scaling guide, organisational capacity building guide, SME transition management guide, projector.	• Record year-one, two and three targets for revenue, production, market and staff • Design an operation scaling plan; record current capacity, target capacity, investment needed and implementation steps • Prepare an organisational capacity-building plan. • Record current gaps in systems, staff and governance and actions to address each • Assess the readiness of one agribusiness SME to transition from small to medium enterprise. • Record readiness score and two priority actions • Present the three-year growth plan to the class. • Identify growth targets, scaling strategy and expected impact on revenue and employment	for one agribusiness SME; record year-one, two and three targets for revenue, production, market and staff • Design an operation scaling plan; record current capacity, target capacity, investment needed and implementation steps • Prepare an organisational capacity building plan; record current gaps in systems, staff and governance and actions to address each • Assess the readiness of one agribusiness SME to transition from small to medium enterprise; record readiness score and two priority	operation scaling plan template, organisational capacity building plan template, SME transition readiness assessment tool, field notebooks.

					actions • Present the three-year growth plan to the class. • Identify growth targets, scaling strategy and expected impact on revenue and employment	
GENERAL OBJECTIVE 3.0: Know branding and marketing for agribusiness enterprises						
5–7	3.1 Define branding and marketing 3.2 Describe brand identity elements for agribusiness enterprises: name, logo, packaging and positioning 3.3 Explain how to develop a brand strategy for a Nigerian agribusiness SME 3.4 Describe how to design packaging and labelling that meets NAFDAC requirements and appeals to consumers 3.5 Explain digital marketing strategies for agribusiness	• Describe brand identity elements with Nigerian agribusiness enterprise examples • Demonstrate brand strategy development for one Nigerian agribusiness SME • Demonstrate NAFDAC-compliant packaging and labelling design for one product • Demonstrate digital marketing strategy for agribusiness SME brand building • Explain brand equity and customer loyalty measurement for agribusiness enterprises	Brand identity elements guide, brand strategy template, NAFDAC packaging and labelling guide, digital marketing strategy template, brand equity measurement guide, projector.	• Develop a brand identity for one agribusiness SME. • Record brand name, logo concept, colour scheme, tagline and brand story • Design NAFDAC-compliant packaging and a product label for one agribusiness product. • Record all required label elements • Develop a digital marketing strategy. • Record channels, content types, schedule and budget • Create three digital marketing content pieces for one agribusiness	Guide students to: • Develop a brand identity for one agribusiness SME; record brand name, logo concept, colour scheme, tagline and brand story • Design NAFDAC-compliant packaging and a product label for one agribusiness product; record all required label elements • Develop a digital marketing strategy; record channels, content	Brand identity template, NAFDAC packaging and labelling guide, Food label design template, Digital marketing strategy template, Brand awareness survey form, Field notebooks.

	SME brand building and market expansion 3.6 Describe how to measure brand equity and customer loyalty for an agribusiness enterprise			product. • Record platform, content, target audience and expected reach • Measure brand awareness for one agribusiness product by surveying ten consumers. • Record awareness level, perception and two improvement actions	types, schedule and budget • Create three digital marketing content pieces for one agribusiness product; record platform, content, target audience and expected reach • Measure brand awareness for one agribusiness product by surveying ten consumers. • Record awareness level, perception and two improvement actions	
GENERAL OBJECTIVE 4.0: Understand agro-processing operations and quality management						
8–10	4.1 Describe agro-processing operations management: production planning, scheduling and capacity management 4.2 Explain how to apply quality management	• Describe agro-processing operations management with production planning and scheduling examples • Explain quality management systems application in agro-processing SMEs	Agro-processing operations management guide, quality management system guide, raw material procurement guide, waste management	• Develop a weekly production schedule for one agro-processing SME. • Record products, quantities, inputs needed, staff assigned and timeline • Conduct a quality control inspection of one	Guide students to: • Develop a weekly production schedule for one agro-processing SME; record products, quantities, inputs needed, staff assigned and	Agro-processing production schedule template, quality control inspection form, raw material procurement plan template, by-product

	systems in an agro-processing SME 4.3 Describe how to manage raw material procurement and inventory for agro-processing enterprises 4.4 Explain waste management and by-product utilisation in agro-processing operations 4.5 Describe how to calculate the cost of production and set prices for agro-processed products	• Describe raw material procurement and inventory management for agro-processing • Explain waste management and by-product utilisation with Nigerian agro-processing examples • Demonstrate cost of production calculation and price setting for one agro-processed product	guide, cost of production calculation worksheet, projector.	agro-processing product at three stages. • Record stage, quality parameter, finding and corrective action • Prepare a raw material procurement plan for one agro-processing enterprise for one month. • Record input, quantity, supplier, price and delivery schedule • Identify one by-product from one agro-processing operation and develop a utilisation plan. • Record by-product, quantity, utilisation option and expected revenue • Calculate the cost of production and recommended selling price for one agro-processed product. • Record all cost items, margin and final price	timeline • Conduct a quality control inspection of one agro-processing product at three stages; record stage, quality parameter, finding and corrective action • Prepare a raw material procurement plan for one agro-processing enterprise for one month; record input, quantity, supplier, price and delivery schedule • Identify one by-product from one agro-processing operation and develop a utilisation plan; record by-product, quantity, utilisation option and expected revenue • Calculate the cost	utilisation plan template, cost of production calculation worksheet, field notebooks.

					of production and recommended selling price for one agro-processed product. • Record all cost items, margin and final price	
GENERAL OBJECTIVE 5.0: Understand SME formalisation and regulatory compliance						
11–12	5.1 Describe the SME formalisation process in Nigeria: CAC registration, tax registration and licensing 5.2 Explain the regulatory requirements for agro-processing SMEs: NAFDAC, SON, HACCP and food hygiene 5.3 Describe labour law compliance requirements for Nigerian agribusiness SMEs 5.4 Explain how to prepare and maintain compliance documentation for an agribusiness SME	• Describe SME formalisation process with CAC, tax and licensing steps and costs • Explain agro-processing regulatory requirements with agency mandates and compliance steps • Explain labour law compliance requirements with agribusiness SME examples • Explain compliance documentation preparation and maintenance for SMEs • Explain how formalisation improves finance, market and procurement access	SME formalisation process guide, agro-processing regulatory requirements guide, labour law compliance guide, compliance documentation guide, formalisation benefits evidence, projector.	• Prepare a CAC registration checklist for one agribusiness SME. • Record all steps, documents, fees and timeline • Research the regulatory compliance requirements for one agro-processing enterprise. • Record agency, requirement, compliance action and cost • Prepare a compliance calendar for one agribusiness SME. • Record all activities, due dates and responsible persons for one year • Compile a compliance documentation folder; include certificates,	Guide students to: • Prepare a CAC registration checklist for one agribusiness SME; record all steps, documents, fees and timeline • Research the regulatory compliance requirements for one agro-processing enterprise; record agency, requirement, compliance action and cost • Prepare a compliance calendar for one agribusiness	CAC registration checklist template, agro-processing regulatory compliance research guide, compliance calendar template, compliance documentation folder guide,

	5.5 Describe how formalisation improves agribusiness SME access to finance, markets and public procurement	with evidence		licences, tax documents and inspection records • Present the formalisation and compliance plan to the class. • Create presentation slides to explain each requirement, compliance steps and expected benefit	SME; record all activities, due dates and responsible persons for one year • Compile a compliance documentation folder; include certificates, licences, tax documents and inspection records • Present the formalisation and compliance plan to the class. • Create presentation slides to explain each requirement, compliance steps and expected benefit.	
GENERAL OBJECTIVE 6.0: Understand SME financing and investment for enterprise growth						
13–15	6.1 Describe SME financing options available to Nigerian agribusiness enterprises: equity, debt, grants and blended finance	• Describe SME financing options with Nigerian agribusiness examples for each • Demonstrate bankable investment proposal preparation for one	SME financing options guide, bankable investment proposal template, BOI BOA SMEDAN	• Research two SME financing sources for one agribusiness growth project. • Record source, type, amount, interest rate, eligibility and	Guide students to: • Research two SME financing sources for one agribusiness growth project; record source,	SME financing options research guide, bankable investment proposal template, BOI BOA loan

	6.2 Explain how to prepare a bankable investment proposal for agribusiness SME growth financing 6.3 Describe how to access BOI, BOA and SMEDAN financing for agribusiness SME growth 6.4 Explain how to use impact investment and social enterprise financing for agribusiness SMEs	agribusiness SME • Explain BOI, BOA and SMEDAN financing with eligibility, amounts and application steps • Explain impact investment and social enterprise financing with Nigerian agribusiness examples	financing guide, impact investment guide, investor relations and financial reporting guide, projector.	application process • Prepare a bankable investment proposal for one agribusiness SME growth plan including executive summary, business description, market, operations, finance and funding request • Prepare a BOI or BOA loan application package. • Record all required documents, amounts and eligibility criteria • Present the bankable investment proposal to the class as a mock investor pitch. • Respond to three investor questions	type, amount, interest rate, eligibility and application process • Prepare a bankable investment proposal for one agribusiness SME growth plan including executive summary, business description, market, operations, finance and funding request • Prepare a BOI or BOA loan application package; record all required documents, amounts and eligibility criteria • Present the bankable investment proposal to the class as a mock investor pitch;	application package guide, impact investor research guide, field notebooks.

					respond to three investor questions	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

AGRIBUSINESS LAW AND CONTRACT MANAGEMENT

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS LAW AND CONTRACT MANAGEMENT	**COURSE CODE: ABM 423**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and skills of basic legal principles in agribusiness and contract management.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Know the sources, nature and meaning of laws in Nigeria and their impact on agribusiness; 2.0 Know the Nigerian Land Law ; 3.0 Understand the law of the sea, water and fisheries; 4.0 Understand the law of contract in agribusiness management ; 5.0 Understand the law of property ; 6.0 Understand law of tort in agribusiness management.		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRIBUSINESS LAW AND CONTRACT MANAGEMENT	**COURSE CODE: ABM 423**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and skills of basic legal principles in agribusiness and contract management.		
GENERAL OBJECTIVE 1.0: Know the sources, nature and meaning of laws in Nigeria and their impact on agribusiness		

THEORETICAL CONTENT				**PRACTICAL CONTENT**		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1-2	1.1 Explain the meaning of law 1.2 List the types of law 1.3 Explain the sources of Nigerian laws 1.4 Explain the relevance of law to agriculture 1.5 State at least five laws that relate to agribusiness enterprises in Nigeria	• Discuss the meaning of law and the types of laws • Explain the sources of Nigerian law • Discuss the relevance of law to agriculture • List and explain five laws relating to agribusiness enterprises in Nigeria	Agribusiness law textbook, Nigerian legal statutes, e-materials, computer, projector.	• Identify the types of laws that exist in Nigeria. • Record each type with one example of how it affects agribusiness • Identify at least five laws that relate to agribusiness enterprises in Nigeria. • Record each law, the year enacted and its agribusiness relevance • Identify three sources from which law documents can be	Guide students to: • Identify the types of laws that exist in Nigeria; record each type with one example of how it affects agribusiness • Identify at least five laws that relate to agribusiness enterprises in Nigeria; record each law, the year enacted and	Nigerian legal statutes reference guide, Agribusiness law relevance worksheet, Source identification guide, Law firm visit observation form, Agribusiness legal compliance summary template, Field notebooks.

				obtained in Nigeria. • Record each source, how to access it and one law document obtained from it • Visit a law firm or legal aid office. • Record the types of agribusiness legal matters they handle and one key observation • Prepare a one-page summary of how Nigerian law affects one agribusiness enterprise of your choice. • Record two legal obligations the enterprise must comply with	its agribusiness relevance • Identify three sources from which law documents can be obtained in Nigeria; record each source, how to access it and one law document obtained from it • Visit a law firm or legal aid office; record the types of agribusiness legal matters they handle and one key observation • Prepare a one-page summary of how Nigerian law affects one agribusiness enterprise of your choice. • Record two legal obligations the enterprise must comply with	

GENERAL OBJECTIVE 2.0: Know the Nigerian Land Law						
3–5	2.1 Explain Nigerian Land Law 2.2 Explain the general principles of land tenure in Nigeria 2.3 Describe the different ownership interests in land 2.4 Explain the legal implications of state control of land and acquisition of interest 2.5 Explain the meaning of mortgage and its significance to farm properties 2.6 Explain the procedure of land registration 2.7 Distinguish between survey map and plans 2.8 Explain the problems of land titles in Nigeria 2.9 Explain types of tenure problems and security of title and registration	• Discuss the general principles of land tenure in Nigeria • Explain the different ownership interests in land • Discuss the legal implications of state control of land and acquisition of interest in land • Explain the meaning of mortgage and its significance to farm properties • Discuss the procedure of land registration • Discuss the differences between survey map and plans • Discuss the problems of land titles in Nigeria • Discuss types of tenure problems of security of title and registration	Nigerian Land Use Act 1978, land tenure guide, land registration procedure guide, survey map samples, agribusiness law textbook, projector.	• Visit a rural community. • Identify and record the land ownership systems that exist, the dominant tenure type and one land dispute observed or reported • Research the procedure for registering a farmland title in your state. • Record each step, the agency responsible and estimated cost • Examine one sample survey map and one survey plan. • Record three differences between them and state which is more useful for agribusiness land transactions • Identify three tenure problems faced by farmers in one local community. • Record each problem, cause and one recommended legal remedy • Prepare a land acquisition brief for one proposed agribusiness enterprise. • Record location, tenure	Guide students to: • Visit a rural community; identify and record the land ownership systems that exist, the dominant tenure type and one land dispute observed or reported • Research the procedure for registering a farm land title in your state; record each step, the agency responsible and estimated cost • Examine one sample survey map and one survey plan; record three differences between them and state which is more useful for agribusiness land transactions • Identify three tenure problems faced by farmers	Nigerian Land Use Act 1978, land registration procedure guide, sample survey map and plan, tenure problem identification worksheet, land acquisition brief template, field notebooks.

				type, acquisition process and one legal risk to manage	in one local community; record each problem, cause and one recommended legal remedy • Prepare a land acquisition brief for one proposed agribusiness enterprise. • Record location, tenure type, acquisition process and one legal risk to manage	
GENERAL OBJECTIVE 3.0: Understand the law of the sea, water and fisheries						
6–8	3.1 Explain the different types of Nigerian law guiding internal and external territorial waters and rivers 3.2 Explain the significance of legal control on the management of sea and rivers 3.3 Explain the legal implications of farms having rivers as common boundaries 3.4 Explain the meaning of riparian rights and	• Explain the different types of Nigerian law guiding internal and external territorial waters and rivers under the concept of blue economies • Discuss the significance of the legal control on the management of sea and rivers • Discuss the legal implications of farms having rivers as common boundaries • Explain the meaning of	Nigerian Fisheries Act, territorial waters legislation, riparian rights guide, blue economy reference, agribusiness law textbook, projector.	• Identify two Nigerian laws that regulate fishing and water use. • Record each law, the regulatory body responsible, key provisions and one penalty for violation • Visit or research one farm or agribusiness located near a river or water body. • Record the riparian rights applicable, boundary implications and one legal obligation the farm must observe	Guide students to: • Identify two Nigerian laws that regulate fishing and water use. • Record each law, the regulatory body responsible, key provisions and one penalty for violation • Visit or research one farm or agribusiness located near a river or water body.	Nigerian Fisheries Act, territorial waters legislation, riparian rights guide, fishery compliance checklist template, water and fishing law mapping template, field notebooks,

	other rights in the use of water and river boundaries 3.5 Explain the legal aspects of control and management of fisheries and other marine resources	riparian rights and other rights in the use of water and river boundaries • Discuss the legal aspects of control and management of fisheries and other marine resources		• Research one case of illegal fishing or water boundary dispute in Nigeria. • Record parties involved, law violated, outcome and one lesson for agribusiness operators • Prepare a compliance checklist for one fishery or aquaculture enterprise. • Record each applicable law, compliance requirement and current compliance status • Map the water and fishing laws applicable to one Nigerian coastal or riverine agribusiness. • Record each law, jurisdiction and one management implication	• Record the riparian rights applicable, boundary implications and one legal obligation the farm must observe • Research one case of illegal fishing or water boundary dispute in Nigeria. • Record parties involved, law violated, outcome and one lesson for agribusiness operators • Prepare a compliance checklist for one fishery or aquaculture enterprise. • Record each applicable law, compliance requirement and current compliance status • Map the water and fishing laws applicable to one Nigerian coastal or riverine	

					agribusiness. • Record each law, jurisdiction and one management implication	
GENERAL OBJECTIVE 4.0: Understand the law of contract in agribusiness management						
9–10	4.1 Define contract 4.2 Explain the essential elements of a valid contract and privity of contract 4.3 Describe the essential elements of a valid agribusiness contract 4.4 Describe types of agribusiness contracts: sales, supply, service, employment and joint venture contracts 4.5 Explain contract farming agreements and their importance for agribusiness value chain coordination 4.6 Describe Nigerian contract law principles applicable to agribusiness enterprise	• Discuss contract and explain the essential elements of a valid contract and privity of contract • Discuss the essential elements of a valid agribusiness contract • Discuss types of agribusiness contracts: sales, supply, service, employment and joint venture contracts • Explain contract farming agreements and their importance for agribusiness value chain coordination • Discuss Nigerian contract law principles applicable to agribusiness enterprise transactions • Explain common causes of agribusiness contract disputes and how to prevent them	Contract essential elements guide, agribusiness contract types guide, contract farming agreement guide, Nigerian contract law summary, partnership deed guide, memorandum and articles of association samples, projector.	• Identify the essential elements present in one provided agribusiness contract. • Record each element, evidence in the contract and any missing element • Classify five agribusiness contract scenarios by contract type. • Record each scenario, type identified and key features • Identify three potential dispute causes in one provided agribusiness contract. • Record clause, dispute risk and recommended improvement • Research one Nigerian court case involving an agribusiness contract dispute. • Record parties, issue,	Guide students to: • Identify the essential elements present in one provided agribusiness contract; record each element, evidence in the contract and any missing element • Classify five agribusiness contract scenarios by contract type; record each scenario, type identified and key features • Identify three potential dispute causes in one provided agribusiness contract; record clause, dispute	Sample agribusiness contracts, contract essential elements checklist, contract classification guide, Nigerian agribusiness contract case research guide, sample partnership deed, field notebooks.

	transactions 4.7 Explain common causes of agribusiness contract disputes and how to prevent them 4.8 Explain the legal nature of agribusiness companies 4.9 Explain partnership and its types 4.10 Explain the usual provisions of partnership deeds 4.11 Explain limited liability (Ltd) and public liability (Plc) business organisations 4.12 Describe the contents of the memorandum and articles of association	• Explain the legal nature of agribusiness companies • Discuss partnership and its types and explain the usual provisions of partnership deeds • Explain limited liability (Ltd) and public liability (Plc) business organisations • Describe the contents of the memorandum and articles of association		court decision and lesson for agribusiness managers • Review one sample partnership deed. • Record five key provisions, their purpose and one clause you would negotiate if entering the partnership	risk and recommended improvement • Research one Nigerian court case involving an agribusiness contract dispute; record parties, issue, court decision and lesson for agribusiness managers • Review one sample partnership deed. • Record five key provisions, their purpose and one clause you would negotiate if entering the partnership	
GENERAL OBJECTIVE 5.0: Understand the law of property						
11–13	5.1 Explain property law 5.2 Classify types of properties 5.3 Explain the protection of interest in property 5.4 Explain modes and acquisition of	• Describe the classification of types of properties • Discuss the protection of interest in property • State modes and process of acquisition of property	Property law guide, agribusiness supply contract template, contract review and redlining guide, key	• Prepare an agribusiness supply contract from provided negotiated terms. • Record all key clauses and complete all required sections • Review one provided	Guide students to: • Prepare an agribusiness supply contract from provided negotiated terms; record all key clauses and	Agribusiness supply contract template, Agribusiness contract for redlining exercise, force majeure and

	property 5.5 Describe limitations of ownership and use of properties 5.6 Describe how to prepare a simple agribusiness supply contract from negotiated terms 5.7 Explain how to review and redline an agribusiness contract for risk and fairness 5.8 Describe key clauses in agribusiness contracts: price, delivery, quality, payment and dispute resolution 5.9 Explain how to include force majeure, indemnity and limitation of liability clauses 5.10 Describe how to execute and store agribusiness contracts properly	• Explain the limitation of ownership and use of properties • Demonstrate simple agribusiness supply contract preparation from negotiated terms • Demonstrate contract review and redlining for one agribusiness contract • Describe key contract clauses with agribusiness examples for each • Explain force majeure, indemnity and limitation of liability with agribusiness examples • Explain contract execution and storage procedures for agribusiness	contract clauses guide, force majeure and indemnity guide, contract execution and storage guide, projector.	agribusiness contract and redline three problematic clauses. • Record each clause, issue, risk and proposed revision • Add a force majeure clause and a dispute resolution clause to one agribusiness contract. • Record each clause with full text and justification • Compare two versions of one agribusiness contract. • Record differences, which version is more favourable and justification • Present a draft agribusiness supply contract, key clauses, protections included and two risks mitigated to the class.	complete all required sections • Review one provided agribusiness contract and redline three problematic clauses; record each clause, issue, risk and proposed revision • Add a force majeure clause and a dispute resolution clause to one agribusiness contract; record each clause with full text and justification • Compare two versions of one agribusiness contract; record differences, which version is more favourable and justification • Present a draft agribusiness supply contract,	dispute resolution clause templates, two-version contract comparison template, field notebooks.

					key clauses, protections included and two risks mitigated to the class.	
GENERAL OBJECTIVE 6.0: Understand law of tort in agribusiness management						
14–15	6.1 Explain the law of tort 6.2 Explain the administration and distribution of estates 6.3 Explain the meaning of tort, contract and crime and distinguish tort from contract 6.4 Explain the principles of liability 6.5 Explain specific torts in relation to negligence, nuisance and strict liability 6.6 Explain liability from animals and trespassing 6.7 Describe the contract management process: monitoring performance,	• State the meaning of tort, contract and crime; differentiate tort from contract • Discuss the administration and distribution of estates • Discuss the principles of liability • Discuss specific torts in relation to negligence, nuisance and strict liability • Discuss liability from animals and trespassing • Describe contract management process with agribusiness supply contract examples • Demonstrate agribusiness contract performance monitoring using a scorecard • Describe contract variation and amendment management with agribusiness	Law of tort guide, estate administration guide, contract management process guide, contract performance scorecard, contract variation management guide, dispute resolution methods guide, contract closeout procedure guide, projector.	• Develop a contract performance monitoring plan for one agribusiness supply contract. • Record KPIs, targets, measurement method and frequency • Monitor one agribusiness contract scenario for four weeks. • Record performance against KPIs, any deviations and actions taken each week • Prepare a contract variation request for one agribusiness contract change. • Record original term, proposed change, justification and approval required • Role-play one agribusiness contract dispute using negotiation to reach agreement. • Record dispute,	Guide students to: • Develop a contract performance monitoring plan for one agribusiness supply contract; record KPIs, targets, measurement method and frequency • Monitor one agribusiness contract scenario for four weeks; record performance against KPIs, any deviations and actions taken each week • Prepare a contract variation request for one agribusiness	Contract performance monitoring plan template, contract performance KPI scorecard, contract variation request template, agribusiness contract dispute role-play scenarios, contract closeout report template, field notebooks.

	managing changes and resolving variations 6.8 Explain how to monitor agribusiness contract performance against agreed terms 6.9 Describe how to manage contract variations and amendments in agribusiness 6.10 Explain agribusiness dispute resolution methods: negotiation, mediation, arbitration and litigation 6.11 Describe how to close out an agribusiness contract professionally	examples • Explain dispute resolution methods with agribusiness application and cost comparison for each • Explain professional agribusiness contract closeout procedure		positions, outcome and lesson learned • Prepare a contract closeout report for one agribusiness contract. • Record deliverables completed, performance summary and lessons for future contracts	contract change; record original term, proposed change, justification and approval required • Role-play one agribusiness contract dispute using negotiation to reach agreement; record dispute, positions, outcome and lesson learned • Prepare a contract closeout report for one agribusiness contract. • Record deliverables completed, performance summary and lessons for future contracts	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

AGRICULTURAL INNOVATION AND INVESTMENT PITCHING

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRICULTURAL INNOVATION AND INVESTMENT PITCHING	**COURSE CODE: ABM 424**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
GOAL: This course is designed to equip students with knowledge and practical skills in agricultural innovation management and investment pitching for agribusiness enterprises.		
GENERAL OBJECTIVES: On completion of this course, the students should be able to: 1.0 Understand innovation systems and agribusiness innovation management; 2.0 Know design thinking and innovation tools in agribusiness; 3.0 Understand agribusiness innovation project development and management; 4.0 Know investment pitch preparation for agribusiness enterprises;		

PROGRAMME: HIGHER NATIONAL DIPLOMA (HND) IN AGRIBUSINESS MANAGEMENT		
COURSE TITLE: AGRICULTURAL INNOVATION AND INVESTMENT PITCHING	**COURSE CODE: ABM 424**	**CONTACT HOURS: 3 HOURS/WEEK**
YEAR: II SEMESTER: II	**CREDIT UNIT: 3**	**THEORETICAL: 1 HOUR/WEEK**
	PRE-REQUISITE:	**PRACTICAL: 2 HOURS/WEEK**
COURSE SPECIFICATION: THEORETICAL AND PRACTICAL		
GOAL: This course is designed to equip students with knowledge and practical skills in agricultural innovation management and investment pitching for agribusiness enterprises.		
GENERAL OBJECTIVE 1.0: Understand innovation systems and agribusiness innovation management		

THEORETICAL CONTENT				PRACTICAL CONTENT		
WEEK	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**	**SPECIFIC LEARNING OUTCOMES**	**TEACHER'S ACTIVITIES**	**RESOURCES**
1-3	1.1 Define innovation 1.2 Describe innovation types: product, process, market and organisational innovation in agribusiness 1.3 Describe the agricultural innovation system in Nigeria: public, private and NGO actors and linkages 1.4 Explain how innovation creates competitive	•Explain innovation •Describe types with Nigerian agribusiness examples for each •Describe Nigerian agricultural innovation system with actor examples and linkages •Explain innovation competitive advantage with Nigerian agribusiness case studies •Explain innovation culture building with	Innovation types guide, Nigerian agricultural innovation system map, innovation competitive advantage evidence, innovation culture building guide, innovation performance measurement guide, projector.	• Classify five Nigerian agribusiness innovations by type. • Record innovation, type, enterprise and impact • Map the agricultural innovation system for one Nigerian agribusiness sector. • Record actors, roles and key linkages • Identify one innovation opportunity in one agribusiness value chain.	Guide students to: • Classify five Nigerian agribusiness innovations by type; record innovation, type, enterprise and impact • Map the agricultural innovation system for one Nigerian agribusiness sector; record actors, roles and	Nigerian agribusiness innovation examples, innovation system mapping template, innovation opportunity identification guide, innovation culture assessment tool, field notebooks.

	advantage and value for agribusiness enterprises 1.5 Describe how to build an innovation culture within an agribusiness organisation 1.6 Explain how to measure and manage innovation performance in agribusiness	agribusiness organisation examples •Explain innovation performance measurement with agribusiness KPI examples		• Record problem, innovation concept, target users and expected impact • Assess the innovation culture of one agribusiness enterprise. • Record enabling factors present, missing and two recommended improvements • Present the innovation system map and opportunity to the class. • Identify two system gaps and the innovation concept recommended	key linkages • Identify one innovation opportunity in one agribusiness value chain; record problem, innovation concept, target users and expected impact • Assess the innovation culture of one agribusiness enterprise. • Record enabling factors present, missing and two recommended improvements • Present the innovation system map and opportunity to the class. • Identify two system gaps and the innovation concept recommended	
GENERAL OBJECTIVE 2.0: Know design thinking and innovation tools in agribusiness						
4-7	2.1 Describe the design	•Describe design	Design thinking	• Apply Jobs-to-be-Done	Guide students to:	Jobs-to-be-Done

	thinking process and its application to complex agribusiness problems 2.2 Explain how to use the Jobs-to-be-Done framework for agribusiness innovation opportunity identification 2.3 Describe how to apply the Lean Innovation Canvas for agribusiness innovation planning 2.4 Explain open innovation approaches and their application in agribusiness enterprises 2.5 Describe how to test and validate agribusiness innovation concepts before full investment	thinking process; demonstrate application to one agribusiness problem •Demonstrate Jobs-to-be-Done analysis for one agribusiness user segment •Demonstrate Lean Innovation Canvas for one agribusiness innovation concept •Explain open innovation approaches with Nigerian agribusiness partnership examples •Explain innovation concept testing and validation with agribusiness examples	process guide, Jobs-to-be-Done framework guide, Lean Innovation Canvas template, open innovation guide, innovation validation methods guide, projector.	analysis to one agribusiness user segment. • Record job, pain points, gain creators and unmet needs • Complete a Lean Innovation Canvas for one agribusiness innovation. • Record problem, solution, unique value, target users and success metrics • Test one agribusiness innovation concept through interviews with five target users. • Record responses and key validation findings • Apply design thinking to one agribusiness problem. • Record each stage outcome and the resulting innovation concept • Present the Lean Innovation Canvas and validation findings, explain concept, user evidence and next development step to the	• Apply Jobs-to-be-Done analysis to one agribusiness user segment; record job, pain points, gain creators and unmet needs • Complete a Lean Innovation Canvas for one agribusiness innovation; record problem, solution, unique value, target users and success metrics • Test one agribusiness innovation concept through interviews with five target users; record responses and key validation findings • Apply design thinking to one agribusiness problem; record each stage outcome and the resulting innovation	framework guide, Lean Innovation Canvas template, innovation concept testing guide, design thinking worksheet, field notebooks.

				class	concept • Present the Lean Innovation Canvas and validation findings, explain concept, user evidence and next development step to the class	
GENERAL OBJECTIVE 3.0: Know agribusiness innovation project development and management						
8–11	3.1 Describe how to develop an agribusiness innovation project from concept to implementation plan 3.2 Explain how to build and manage an agribusiness innovation team 3.3 Describe how to develop an innovation project budget and financial projections 3.4 Explain how to manage intellectual property created through agribusiness innovation 3.5 Describe how to scale a successful	•Demonstrate agribusiness innovation project development from concept to plan •Explain innovation team building and management with agribusiness examples •Demonstrate innovation project budget and financial projection preparation •Explain IP management for agribusiness innovation with patent, trademark and copyright examples •Explain agribusiness innovation scaling strategies with Nigerian and African examples	Innovation project development guide, innovation team management guide, innovation project budget template, IP management guide, innovation scaling guide, projector.	• Develop an innovation project plan. • Record concept, objectives, activities, milestones, timeline and team roles • Prepare an innovation project budget. • Record all cost items, quantities, unit costs and total budget for each phase • Identify the intellectual property created by one agribusiness innovation. • Record IP type, protection mechanism and registration steps • Develop an innovation scaling plan. • Record target markets,	Guide students to: • Develop an innovation project plan. • Record concept, objectives, activities, milestones, timeline and team roles • Prepare an innovation project budget; record all cost items, quantities, unit costs and total budget for each phase • Identify the intellectual property created by one	Innovation project plan template, innovation project budget template, IP management guide, innovation scaling plan template, field notebooks.

	agribusiness innovation across markets and geographies			scaling activities, resources needed and timeline • Present the innovation project plan, concept, team structure, budget and scaling strategy to the class	agribusiness innovation; record IP type, protection mechanism and registration steps • Develop an innovation scaling plan; record target markets, scaling activities, resources needed and timeline • Present the innovation project plan, concept, team structure, budget and scaling strategy to the class	
GENERAL OBJECTIVE 4.0: Know investment pitch preparation for agribusiness enterprises						
12–15	4.1 Describe the components of a winning agribusiness investment pitch: problem, solution, market, traction, team, financials and ask 4.2 Explain how to develop a compelling agribusiness problem statement and solution narrative	•Describe winning pitch components with a successful Nigerian agribusiness pitch example •Demonstrate compelling problem statement and solution narrative development •Demonstrate market sizing: Total Addressable Market (TAM), Serviceable	Agribusiness pitch component guide, problem statement and solution narrative guide, market sizing guide, traction presentation guide, pitch deck template, projector.	• Develop a compelling problem statement and solution narrative for one agribusiness enterprise. • Record problem, target users, solution and unique differentiation • Calculate TAM, SAM and SOM for one agribusiness enterprise. • Record market definition, sizing	Guide students to: • Develop a compelling problem statement and solution narrative for one agribusiness enterprise; record problem, target users, solution and unique differentiation • Calculate TAM,	Agribusiness pitch component guide, market sizing calculation guide, traction slide template, ten-slide pitch deck template, mock investor panel assessment rubric, field notebooks.

	4.3 Describe how to build a credible market sizing and revenue model for an agribusiness pitch 4.4 Explain how to present agribusiness traction: customers, revenue, partnerships and impact 4.5 Describe how to design and deliver a ten-slide agribusiness investor pitch deck	Addressable Market (SAM) and Serviceable Obtainable Market (SOM) for one agribusiness enterprise •Explain traction presentation with agribusiness customer and revenue evidence examples •Demonstrate ten-slide pitch deck design and delivery for one agribusiness investment case		method and final estimates for each • Build the traction slide for one agribusiness enterprise. • Record customers, revenue, growth rate, partnerships and one key impact metric • Prepare a complete ten-slide pitch deck. • Record content of each slide and design rationale • Deliver the pitch deck to the class in ten minutes.	SAM and SOM for one agribusiness enterprise; record market definition, sizing method and final estimates for each • Build the traction slide for one agribusiness enterprise; record customers, revenue, growth rate, partnerships and one key impact metric • Prepare a complete ten-slide pitch deck; record content of each slide and design rationale • Deliver the pitch deck to the class in ten minutes.	

COURSE ASSESSMENT:
Course Work: 10%
Test/Assignments: 10%
Practical: 40%
Examination: 40%

LIST OF MINIMUM RESOURCES/PHYSICAL FACILITIES

1.0 AUDIO-VISUAL AND ICT EQUIPMENT

S/N	Item	Quantity
1	Smart Interactive Board / LCD Projector with Screen	2
2	Overhead Projector	2
3	Slide / Film Projector	1
4	Coloured Television Set	2
5	Video Recorder and Player	1 set
6	Radio Cassette / Audio Player	2
7	Complete Public Address System	1
8	Digital Camera (HD)	2
9	Printer (Colour Laser)	2
10	Scanner (A4 / A3)	1
11	Photocopying Machine	1
12	UPS / Voltage Stabiliser	4
13	Hand Fire Extinguisher	4
14	VSAT / Router / Wi-Fi Access Points	2 sets

N/B: *Required for lectures, presentations and digital agribusiness practicals.*

2.0 **COMPUTING AND SOFTWARE RESOURCES**

S/N	Item	Quantity
1	Desktop Computers (with internet access)	20
2	Laptops (for student practical use)	20
3	Smartphones (departmental set for practical work)	20
4	Desk / Electronic Calculators	30
5	Projector Screen	2
6	Microsoft Office Suite (Word, Excel, PowerPoint)	20 licences
7	Microsoft Power BI Desktop (free download)	20 installations
8	Statistical Software: SPSS / STATA / EViews / R	1 licence set
9	Agribusiness Enterprise Management Software (e.g. ERP/farm management)	1 licence set
10	GIS / GPS Software and Devices	1 set
11	Drones / UAV (for precision agriculture demonstrations)	1
12	GSM / GPS Devices	5
13	Shredding Machine	1
14	Giant Stapler	1

N/B: Essential for econometrics, data analytics, digital agribusiness and financial management courses.

3.0 **AGRIBUSINESS RESOURCE CENTRE (HUB)**

S/N	Item	Quantity
1	Flip Chart Boards	4
2	Franking Machine	2
3	Adding Machines	10
4	Darkroom Clock (Archive/Photographic Kit)	1
5	3M Brand Portable Microfilm Processor	1
6	Electric Kettle	2
7	Magnetic / Notice Board	2
8	Agribusiness Planning Templates and Enterprise Budget Forms	50 sets
9	Market Survey Forms / Questionnaires	50 sets
10	Value Chain Mapping Charts and Display Boards	5
11	Field Notebooks / Log Books (student use)	50
12	Relevant Business / Entrepreneurship Films and Documentaries	1 set
13	First Aid Box	2

N/B: Central resource hub for student research, business development and enterprise management activities.

4.0 **PHOTOGRAPHIC AND DOCUMENTATION TOOLS**

S/N	Item	Quantity
1	Digital / Polaroid Camera	5
2	Photographic Enlarger	2
3	Colour Enlarger	2
4	Photo Dryer	1
5	Photo Trimmer / Cutting Board	2
6	Developing Tank	2
7	Printing Trays	8
8	Darkroom / Patterson Complete Dark Kit	1
9	Flash Stand	5
10	Light Meter (Western Master V or equivalent)	5
11	Flood Light	6
12	Lamp Holder	4
13	F-6 / Colour Film Processing Kit	4
14	Fire Extinguishers	2

N/B: *For recording field activities, enterprise visits and practical demonstrations.*

5.0 AGRIBUSINESS ENTERPRISE LABORATORY AND FIELD RESOURCES

S/N	Item	Quantity
1	Demonstration Farm / Enterprise Plot (minimum 2 hectares)	1
2	Farm Management Record Books / Log Books	30
3	Weighing Scales — Platform (100 kg capacity)	2
4	Weighing Scales — Handheld / Portable	5
5	Measuring Tools (tape measures, measuring cylinders, rules)	5 sets
6	Moisture Meter (grain and produce)	3
7	Thermometer / Hygrometer (temperature and humidity monitoring)	5
8	Temperature Data Logger (for cold chain practicals)	3
9	Cold Storage / Refrigeration Unit (cold chain management)	1
10	Drying Machine / Solar Dryer (postharvest practicals)	2
11	Small-Scale Food Processing Equipment (crop and/or animal enterprise)	1 set per enterprise
12	Packaging Materials and Sealing Machines	1 set
13	Product Display Shelves	5
14	Safety Protective Equipment — PPE (gloves, boots, coveralls)	30 sets
15	First Aid Box	2
16	Field Notebooks (practical recording)	30

N/B: For farm management, value chain, food safety, cold chain and enterprise development practicals.

LIST OF ACRONYMS

ACRONYM	FULL MEANING
ABM	Agribusiness Management
AC	Actual Cost (Earned Value Management)
AED	Agricultural Economics and Extension Development
AFEX	Agricultural Futures Exchange of Nigeria
AGSMEIS	Agri-Business/Small and Medium Enterprise Investment Scheme
AIC	Akaike Information Criterion
AMR	Antimicrobial Resistance
ANOVA	Analysis of Variance
APA	American Psychological Association
APT	Animal Productuction Technology
ATC	Average Total Cost
AVC	Average Variable Cost
BATNA	Best Alternative to a Negotiated Agreement
BCG	Boston Consulting Group (Growth-Share Matrix)
BCR	Benefit-Cost Ratio
BI	Business Intelligence
BIC	Bayesian Information Criterion
BMC	Business Model Canvas
BOA	Bank of Agriculture
BOI	Bank of Industry
CAC	Corporate Affairs Commission

CACS	Commercial Agriculture Credit Scheme
CBA	Cost-Benefit Analysis
CBN	Central Bank of Nigeria
CCP	Critical Control Point
CGPA	Cumulative Grade Point Average
CIT	Company Income Tax
CORREL	Correlation (Excel Statistical Function)
COSO	Committee of Sponsoring Organisations of the Treadway Commission
CPI	Consumer Price Index
CPM	Critical Path Method
CPT	Crop Production Technology
CRM	Customer Relationship Management
CSR	Corporate Social Responsibility
DAX	Data Analysis Expressions (Power BI Formula Language)
DFL	Degree of Financial Leverage
DSS	Decision Support System
DW	Durbin-Watson (Statistic)
EBIT	Earnings Before Interest and Taxes
EBT	Earnings Before Taxes
ECOWAS	Economic Community of West African States
EDA	Exploratory Data Analysis
EFE	External Factor Evaluation (Matrix)

EIA	Environmental Impact Assessment
ENT	Entrepreneurship
EOQ	Economic Order Quantity
ERM	Enterprise Risk Management
ERP	Enterprise Resource Planning
EU	European Union
EV	Earned Value
EVM	Earned Value Management
FAO	Food and Agriculture Organisation of the United Nations
FC	Fixed Cost
FGD	Focus Group Discussion
FMAFS	Federal Ministry of Agriculture and Food Security
GAP	Good Agricultural Practice
GDP	Gross Domestic Product
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Development Agency)
GNP	Gross National Product
GNS	General and Nigerian Studies
GPS	Global Positioning System
GSM	Global System for Mobile Communications
HACCP	Hazard Analysis and Critical Control Points
HND	Higher National Diploma

HOD	Head of Department
HR	Human Resources
ICA	International Cooperative Alliance
ICT	Information and Communication Technology
IFE	Internal Factor Evaluation (Matrix)
IP	Intellectual Property
IQR	Interquartile Range
IRR	Internal Rate of Return
IS	Investment-Savings (Curve — Macroeconomics)
ISO	International Organisation for Standardisation
KII	Key Informant Interview
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
LCD	Liquid Crystal Display
LCI	Life Cycle Inventory
LM	Liquidity Preference-Money Supply (Curve — Macroeconomics)
LME	London Metal Exchange
LP	Linear Programming
LRAC	Long-Run Average Cost
LTV	Lifetime Value (of a customer)
M&E	Monitoring and Evaluation
MAE	Mean Absolute Error

MAPE	Mean Absolute Percentage Error
MC	Marginal Cost
MP	Marginal Product
MPR	Monetary Policy Rate
MR	Marginal Revenue
MRL	Maximum Residue Limit
MRTS	Marginal Rate of Technical Substitution
MSE	Mean Squared Error
MSQ	Mandatory Skills Qualification
MVP	Minimum Viable Product
NABG	Nigeria Agribusiness Group
NAFDAC	National Agency for Food and Drug Administration and Control
NAIC	Nigerian Agricultural Insurance Corporation
NALDA	National Agricultural Land Development Authority
NASC	National Agricultural Seeds Council
NBS	National Bureau of Statistics
NBTE	National Board for Technical Education
ND	National Diploma
NEPC	Nigerian Export Promotion Council
NEXIM	Nigerian Export-Import Bank
NGO	Non-Governmental Organisation
NI	National Income

NIRSAL	Nigerian Incentive-Based Risk Sharing System for Agricultural Lending
NPV	Net Present Value
NTFP	Non-Timber Forest Products
NTC	National Technical Certificate
ODK	Open Data Kit
OLS	Ordinary Least Squares
PERT	Programme Evaluation and Review Technique
PESTEL	Political, Economic, Social, Technological, Environmental and Legal (Analysis)
PESTLE	Political, Economic, Social, Technological, Legal and Environmental (Analysis)
PIE	Produce Inspection and Export Management
PM	Project Manager / Project Management
POS	Point of Sale
PPE	Personal Protective Equipment
PRA	Participatory Rural Appraisal
PV	Present Value / Planned Value (EVM)
QC	Quality Control
QMS	Quality Management System
QR	Quick Response (Code)
RBV	Resource-Based View
RFID	Radio Frequency Identification
RMSE	Root Mean Square Error
ROI	Return on Investment

SAM	Serviceable Addressable Market
SCAMPER	Substitute, Combine, Adapt, Modify, Put to Other Uses, Eliminate, Reverse (Innovation Tool)
SCM	Supply Chain Management
SCOR	Supply Chain Operations Reference (Model)
SD	Standard Deviation
SIWES	Students Industrial Work Experience Scheme
SLF	Smallholder Loan Facility
SMA	Simple Moving Average
SMART	Specific, Measurable, Achievable, Relevant and Time-bound (Objectives)
SME	Small and Medium Enterprise
SMEDAN	Small and Medium Enterprises Development Agency of Nigeria
SOM	Serviceable Obtainable Market
SON	Standards Organisation of Nigeria
SPI	Schedule Performance Index
SPS	Sanitary and Phytosanitary (Measures)
SPSS	Statistical Package for the Social Sciences
SRM	Supplier Relationship Management
SROI	Social Return on Investment
SSCE	Senior Secondary Certificate Examination
STATA	Statistics and Data (Software)
STDEV	Standard Deviation (Excel Statistical Function)
SWOT	Strengths, Weaknesses, Opportunities and Threats (Analysis)

TAM	Total Addressable Market
TC	Total Cost
TMS	Transport Management System
TOWS	Threats, Opportunities, Weaknesses and Strengths (Matrix)
TP	Total Product
TQM	Total Quality Management
TR	Total Revenue
TVET	Technical and Vocational Education and Training
UAV	Unmanned Aerial Vehicle (Drone)
UPS	Uninterruptible Power Supply
USSD	Unstructured Supplementary Service Data
VAT	Value Added Tax
VC	Value Chain
VIF	Variance Inflation Factor
VMP	Value of Marginal Product
VRIO	Value, Rarity, Imitability and Organisation (Framework)
VSAT	Very Small Aperture Terminal
WACC	Weighted Average Cost of Capital
WBS	Work Breakdown Structure
WMA	Weighted Moving Average
WMS	Warehouse Management System
WTO	World Trade Organisation

ZOPA	Zone of Possible Agreement

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