Second Year

Subject	Total Hours	Theory	Practical	Weeks
AG2.01 English	180	126	54	36
AG2.02 Sanskrit	108	81	27	36
AG2.03 Transcendental Meditation(TM)	126	0	126	36
AG2.04 TM-Sidhi program	198	0	198	36
AG2.05 Theory of TM-Sidhi Program	46	46	0	2
AG2.06 Statistics	46	25	21	2
AG2.07 Biochemistry	46	32	14	2
AG2.08 Microbiology	46	26	20	2
AG2.09 Meteorology	46	26	20	2
AG2.10 Environment	46	36	10	2
AG2.11 Soil Science	92	72	20	4
AG2.12 Genetics &Selection	69	49	20	3
AG2.13 Plant Physiology	46	32	14	2
AG2.14 Dairy Production	69	44	25	3
AG2.15 Agricultural Engineering	69	46	23	3
AG2.16 Forest Management	69	45	24	3
AG2.17 Agro-chemistry	46	34	12	2
AG2.18 Farming Systems Research	46	29	17	2
AG2.19 Agricultural Zonification	46	34	12	2
AG2.20 Field Trip	-	-	96*	-
Total Hours	**1440**	**803**	**637**	**36**

Third Year

Subject	Total Hours	Theory	Practical	Weeks
AG3.01 English	180	126	54	36
AG3.02 Sanskrit	108	81	27	36
AG3.03 Transcendental Meditation	126	0	126	36
AG3.04 TM-Sidhi program	198	0	198	36
AG3.05 Animal Physiology/Nutrition	46	32	14	2
AG3.06 Principles of Soil Care	46	26	20	2
AG3.07 Water Management	69	44	25	3
AG3.08 Breeding Technology	69	46	23	3
AG3.09 Plant Pathology	69	44	25	3
AG3.10 Crop Protection	46	32	14	2
AG3.11 Tropical Crops	69	43	26	3
AG3.12 Fruit production	69	46	23	3
AG3.13 Aquaculture	69	46	23	3
AG3.14 Agroforestry	46	26	20	2
AG3.15 Research Methodology	69	42	27	3

AG3.16 Agricultural Law	46	34	12	2
AG3.17 Vegetable Production	69	48	21	3
AG3.18 Weed Science	46	26	20	2
AG3.19 Field Trip	-	-	96*	-
Total Hours	**1440**	**742**	**698**	**36**

Fourth Year – Agronomy Specialisation

Subject	**Total Hours**	**Theory**	**Practical**	**Weeks**
AGA4.01 Transcendental Meditation	126	0	126	36
AGA4.02 TM-Sidhi program	198	0	198	36
AGA4.03 Rubber Production	99	64	35	3
AGA4.04 Rice Production	99	57	42	3
AGA4.05 Seed Technology	66	44	22	2
AGA4.06 Pasture & Forage	66	42	24	2
AGA4.07 Farm Management	99	65	34	3
AGA4.08 Agriculture Economics	99	59	40	3
AGA4.09 Rural Development	99	57	42	3
AGA4.10 Agriculture Extension	99	61	38	3
AGA4.11 Project Mgt. & Planning	66	42	24	2
AGA4.12 Agro-Industry	66	36	30	2
AGA4.13 Sustainable Agriculture	99	54	45	3
AGA4.14 Food Processing &Storage	99	63	36	3
AGA4.15 Agro-Tourism	66	44	22	2
AGA4.16 Report Writing Skills	66	48	20	2
Total Hours	**1512**	**736**	**776**	**36**

Fourth Year – Rural Development Specialisation

Subject	**Total Hours**	**Theory**	**Practical**	**Weeks**
AGR4.01 Transcendental Meditation	126	0	126	36
AGR4.02 TM-Sidhi program	198	0	198	36
AGR4.03 Rural Social-Psychology	66	40	26	2
AGR4.04 Primary Health Care	66	38	28	2
AGR4.05 Rural Economics	99	64	35	3
AGR4.06 Rural Development (RD) Concepts & Practice	99	63	36	3
AGR4.07 Rural Development - Institutions & Policy	66	38	28	2
AGR4.08 Communication	99	62	37	3
AGR4.09 Natural Resource Mgt. in RD	66	40	26	2
AGR4.10 Teaching & Learning Process & Mgt. of Training	66	42	24	2
AGR4.11 Appropriate Technology	66	39	27	2

AGR4.12 Project Mgt. & Planning	66	43	23	2
AGR4.13 Research Methods for Rural Development and Extension	66	39	27	2
AGR4.14 Extension – Concepts & Practice	99	66	33	3
AGR4.15 Training, Workshop Processes & Extension Tools	66	37	29	2
AGR4.16 Program Planning, Adaptation & Diffusion in Extension	66	46	20	2
AGR4.17 Administration & Mgt. in Extension	66	35	31	2
AGR4.18 Report Writing Skills	66	33	33	2
Total Hours	**1512**	**725**	**787**	**36**

Fourth Year – Natural Resource Management Specialisation

Subject	Total Hours	Theory	Practical	Weeks
AGN4.01 Transcendental Meditation	126	0	126	36
AGN4.02 TM-Sidhi program	198	0	198	36
AGN4.03 Natural Resource Management Policy	66	42	24	2
AGN4.04 Protected Area Management	66	40	26	2
AGN4.05 Principles of Coastal Resource Management	66	42	24	2
AGN4.06 Principles of Forest Management & Animal Conservation	99	60	39	3
AGN4.07 Forest Land Use & Management	66	44	22	2
AGN4.08 Farm Forestry / Silviculture	99	63	36	3
AGN4.09 Water Resource Management	99	64	35	3
AGN4.10 Principles of Fish Resource Management &Conservation	99	64	35	3
AGN4.11 Fish Farming / Aquaculture	99	60	39	3
AGN4.12 Waste Technology and Management	66	40	26	2
AGN4.13 Tourism Management & Environment / Ecotourism	66	42	24	2
AGN4.14 Project Management & Planning	66	40	26	2
AGN4.15 Land Use Planning	66	46	20	2
AGN4.16 Agriculture Marketing & Accounting	99	69	30	3
AGN4.17 Report Writing Skills	66	40	26	2
Total Hours	**1512**	**756**	**756**	**36**

SUBJECT DESCRIPTIONS

AGRICULTURE CURRICULUM – FIRST YEAR

AG1.01 English

In this beginning course students become familiar with the fundamental sounds, vocabulary and grammatical patterns of the English language. Students quickly gain mastery of the language through the daily practice of grammar, listening, speaking, reading and writing.

AG1.02 Sanskrit

Introduction to Sanskrit – Learning the Language of Nature.
Learning Sanskrit is different from the study of other languages: the sounds of Sanskrit are fundamental expressions of natural law and create an orderly influence on mind and body. This quality of orderly brain functioning is essential for personal and professional success in life. Because of this, Sanskrit is taught as a Vedic technique of Human Resource Development. The study of Sanskrit also gives students access to classical Cambodian texts relating to education, health, agriculture, architecture etc. to traditional Cambodian literature and poetry and to the roots of the Khmer language. As well as watching and discussing tapes of Maharishi on Sanskrit, students also learn to pronounce the Sanskrit alphabet, learn to write and recognise letters in the Devanagari script, recite from the *Bhagavad-Gita* in Sanskrit and learn Sanskrit quotations.

AG1.03 Transcendental Meditation (TM)

The practice of Transcendental Meditation (TM) for 20 minutes in the morning and afternoon for development of the body and mind. During TM students gain a unique state of deep rest and relaxation, releasing accumulated stress and revitalizing the nervous system. The container of knowledge —the mind— is expanded, increasing learning capacity and broadening comprehension. Through this development of body and mind together, students can achieve increasing success and satisfaction in all aspects of life.

AG1.04 Science of Creative Intelligence

The Science of Creative Intelligence® (SCI®) is a new discipline which studies the structure of the unified field of nature's intelligence. Founded by Maharishi in 1970, SCI provides students with a unified framework for studying any discipline. During this 33-lesson course, students gain a profound understanding about the organising power of nature that underlies all areas of life including agricultural production.

AG1.05 Physics- Mechanical

Includes the main topics of classical mechanics, quantum mechanics and quantum field theory. Study of Newtonian gravitation, solids and fluids; simple harmonic motion; resonance; vibrations and waves; the electromagnetic theory of light; elementary particles; and current unified field theories.

AG1.06 Mathematics

Reviews fundamental arithmetic & algebraic skills; operations for integers, fractions and decimal fractions; ratios, percentages & applications; variables, linear equations, factoring, calculus & trigonometry.

AG1.07 Chemistry

Provides a framework for understanding the basis of chemical processes. Topics include atomic and molecular structure, reaction mechanisms, thermochemistry, the physical behaviour of gases, liquids and solids, covalent bonding, etc. Topics in organic chemistry include structure and reaction mechanisms of organic compounds, bonding, spectroscopy, structure, physical properties, synthesis & reactions of major classes of organic compounds.

AG1.08 Biology

Introduction to biological systems as expressions of order & growth at different levels of biological organisation. Examine the range, structure, function integration & development of biological life. Topics include animal metabolism: anatomy, physiology & nutrition; plant metabolism: elementary cell biochemistry, enzyme action, photosynthesis, respiration; cell and molecular biology. Also fundamental genetics, ecological systems, introduction to microorganisms, evolution, interrelated environmental factors, endocrinology & homeostatic systems are covered.

AG1.09 Botany

An introduction to the regional flora of Cambodia, Laos & Vietnam with a focus on taxonomy & plant species. Includes plant morphology & physiology, classification, cell metabolism, chemistry, cell division, plant growth, plant hormones, soil & mineral nutrition, photosynthesis, transpiration, circulation, respiration, absorption, fruit seeds & seedlings, & plant ecology.

AG1.10 Rural Sociology

Study of rural communities: the structure, function & change in rural population, beliefs & attitudes, social institutions, land settlement & tenure, local government, rural groups & attitudes towards innovation & rural problems.

AG1.11 Topography

Principles & methods of chain surveying compass surveying, care & handling of instruments, leveling, contouring, theodolite surveying, traversing & adjustment of errors.

AG1.12 Entomology

Evolution & history of insects, external & internal anatomy, metamorphosis & development, life cycle, physiology, classification & collection of specimens, ecology & damage caused by some insects, insect resistance & research techniques.

AG1.13 Computer Science

An overview of computer components, their functions & why computers are useful. Word processing & typesetting using Microsoft Word, spreadsheet analysis & layout. How to print & overcoming problems in using computers.

AG1.14 Animal Husbandry

Management of draught animals, pigs & poultry. Factors affecting production; health, selection, breeding, nutrition, feeding, housing, marketing, hygiene and management.

AG1.15 Technical Drawing

How to draw maps & plans according to different scales and designs.

AG1.16 Field Trip

A field trip is conducted at the end of the academic year for years 1, 2 & 3. Students are transported to different parts of the country to view a variety of agricultural systems related to their subjects of study.

AGRICULTURE CURRICULUM - SECOND YEAR

AG2.01 English

Students review, expand and develop all the fundamental structures of English. Emphasis is placed on developing listening, reading, speaking and writing skills with greater fluency and confidence.

AG2.02 Sanskrit

During this course students review correct pronunciation of the Sanskrit alphabet and writing in the Devanagari script. Students further develop their writing, reading, speaking and listening skills. Students continue to recite from the *Bhagavad-Gita* and read classical source documents such as the Ramayana, Mahabharata, and ancient Cambodian inscriptions. In addition students watch tapes about the discovery by Dr. Tony Nader, M.D. Ph.D., that the human physiology is a perfect expression of the Sanskrit sounds of the Ved and Vedic Literature.

AG2.03 & AG 2.04 Transcendental Meditation and TM-Sidhi program

The practice of the Transcendental Meditation – Sidhi program, including Yogic Flying for 50 minutes in the morning and afternoon. This advanced practice unfolds the students ability to think and act from transcendental consciousness. Thought and action become more powerful and effective—more fully supported by Natural Law—so that the student becomes increasingly competent to accomplish any objective without strain. Extensive research has shown that when practiced in a group, Yogic Flying creates a measurable influence of harmony and progress throughout society.

AG2.05 Theory of Transcendental Meditation-Sidhi program

Consists of part time instructions over a 3-4 week period, followed by a 2-week full-time block. Students learn the Transcendental Meditation-Sidhi program, including Yogic Flying. The course includes knowledge and practice of the TM-Sidhi program, yogic flying, simple posture exercises & breathing techniques.

AG2.06 Statistics

Fundamental concepts of probability, random variables, mathematical expectation & probability models, distribution classification & analysis, statistical sampling distributions, hypothesis testing, multiple regression analysis, correlation & analysis of variance.

AG2.07 Biochemistry

Structure & function of biochemical compounds as well as basic chemical processes such as metabolic pathways & regulation. Includes the chemistry of amino acids, proteins & carbohydrates, enzymes & co-enzymes, metabolism of carbohydrates, lipids, amino acids, purines & pyridimines, structure function & biosynthesis of RNA & DNA, protein synthesis, genetic coding & metabolic regulation. Laboratory work includes introductions to bio-molecules & basic metabolism, chemical reactions of bio-molecules &, spectrophotometry.

AG2.08 Microbiology

Microscopy, morphology, physiology, metabolism, reproduction, growth and classification to microorganisms. Method of culture isolation, staining & identification; micro-genetics & bacteriophage; destruction by chemical & physical elements. Theories and processes of infection and immunity, selected aspects of microbiology of soil, water, food and sewage.

AG2.09 Meteorology

Review introductory concepts of meteorology & climate including the relationships of radiant energy, temperature, wind and moisture in the atmosphere & near the ground. Interplay between physical processes of atmosphere, plant canopies and soil is examined. Moisture relationship in the atmosphere, soil – plant continuum, the effects of environmental modification and bio-climate requirements of plants are also discussed. Other topics include the history and role of meteorology, meteorological measurement and instrument analysis and interpretation of results.

AG2.10 Environment

Introduction, definition of environment, types of coastal environments: sea & inland regions, high & low coastal regions, plants & animals of coastal regions. Factors affecting the environment, pollution, conservation & systems for measuring environmental factors.

AG2.11 Soil Science

Studies to do with properties & processes of soils for sustainable agriculture production.

Parent materials, genesis & formation of soils; physical, chemical & biochemical properties of soils; availability of nutrients, maintenance of fertility, soil reactions, fertiliser & lime application. Soil surveying & mapping: soil genesis & taxonomy in Cambodia, techniques in soil surveying & mapping, preparing reports. Soil management & conservation: factors affecting soil erosion, types of erosion & related problems, soil conservation techniques, classification of soil capability. Soil ecology & environmental pollution: nature & quality of the environment, biochemical processes in ecosystems, monitoring of agricultural waste.

AG2.12 Genetics & Selection

Cellular & molecular basis for the transmission of heredity characteristics. Mandolin inheritance & its cytological basis. DNA as genetic material, gene action, regulation of gene activities. Genetic variation & evolution. Experimental studies on the basis of hereditary transmission, especially in Drosophile, monohybrid & di-hybrid crosses. Cell division & the studies of chromosome & karyotypes in plant & animal cells.

AG2.13 Plant Physiology

Biochemical & physical processes in plants; transpiration, absorption, transport of water & food, respiration, changes in carbohydrate & protein metabolism, plant nutrition, photosynthesis, plant hormones, plant growth & development.

AG2.14 Dairy Production

Principles of herd quality, breeding & management, nutrition requirements, animal Health & husbandry, product quality control, processing & marketing & distribution of dairy products.

AG2.15 Agricultural Engineering

The principles of farm power & machinery, the internal combustion engine, composition & construction of engines, engine classification & uses, maintenance & costs of tractors, important farm tools.

AG2.16 Forest Management

Forest management, ecology of forests, tree health & disease control, methods of harvesting & marketing, regeneration of forests.

AG2.17 Soil Chemistry

Soil composition with emphasis on structures, minerals & soil organic matter, electrochemical properties of soil, ion exchange in soil, precipitation reaction, soil biochemistry, macro-micro nutrient reactions in soil & recycling of essential elements.

AG2.18 Farming Systems

Systems approach in agriculture, classification & comparison. How the ecology & environment of different areas produce different farming systems.

AG2.19 Agricultural Zonification

Classifying different parts of the country according to the type of crops & agricultural production most suited to that area, Different climatic, soil & environmental conditions have a good or adverse effect on the growth of crops & plants resulting in differences in production according to the area.

AGRICULTURE CURRICULUM - THIRD YEAR

AG3.01 English

This course focuses on building vocabulary, sharpening reading and writing skills and refining understanding and usage of grammar. Students practice making presentations and learn academic writing skills.

AG3.02 Sanskrit

In this advanced course students further develop their Sanskrit writing, reading, speaking and listening skills. Students continue to read classical source documents such as the Ramayana, Mahabharata, and ancient Cambodian inscriptions and practice to recite the *Bhagavad-Gita.* Students listen to recitations from different branches of the Vedic Literature, and study the relationship between the 40 branches of the Vedic Literature and the 40 aspects of the Human Physiology.

AG3.03 & AG3.04 Transcendental Meditation and TM-Sidhi program

The practice of the Transcendental Meditation – Sidhi program, including Yogic Flying for 50 minutes in the morning and afternoon. This advanced practice unfolds the students ability to think and act from transcendental consciousness. Thought and action become more powerful and effective—more fully supported by Natural Law—so that the student becomes increasingly competent to accomplish any objective without strain. Extensive research has shown that when practiced in a group, Yogic Flying creates a measurable influence of harmony and progress throughout society.

AG3.05 Animal Physiology & Nutrition

Nutrition, digestion & absorption; physiology of body fluids; blood, lymph, cerebrospinal & synovial fluids. Study of the physiology of the respiratory, kidney & liver systems.

AG3.06 Principles of Soil Care

Processes & properties of soil so that the land can be used sustainably. Soil fertility: essential nutrient elements, the amount & availability to plants, functions of mineral nutrients, deficiency & toxicity symptoms of mineral nutrients, evaluation of soil fertility status, use of lime & fertiliser. Technologies for increasing productivity: kinds, classification & properties of fertilisers, principles, application & manufacture of fertilisers. Long-term effects on soil & alternative methods of increasing fertility & hence productivity.

AG3.07 Water Management & Conservation

Study of water, soil & plant relationships, evaluation of soil properties & water qualities for irrigation, problems of soil management under irrigation systems & the ecological impact of water management. Water conservation for agriculture & human consumption. Watering and drainage systems.

AG3.08 Breeding Technology

Plant, animal & fish breeding. Seed germination, breeding methodologies in cows and pigs. Different methods of breeding for new fish varieties.

AG3.09 Plant Pathology

Studies on plant pathogenic bacteria, viruses, fungi & nematodes (morphology, growth, reproduction, life cycle & taxonomy); characteristics & symptoms of plant diseases, relationship to the environment; epidemiology; pathogenicity; techniques of surveying & evaluation; diagnosis & control measures.

AG3.10 Crop Protection

Principles & methods of plant protection, agronomic, chemical, genetic, biological control & integrated pest management. Techniques of pesticide application & evaluation of chemical control & safety in its application.

AG3.11 Tropical Crops

Botanical characteristics of important field crops, environmental & agronomic factors affecting growth & production, crop protection, irrigation & marketing & post-harvest care. Cereal Crops: advanced knowledge of cultivation, improvement of yields, harvesting techniques & post-harvest care for maize, corn, sorghum & sugar cane. Fibre & industrial crops: advanced knowledge relevant to the tropics with special emphasis on cotton, kenuff, coffee & cocoa. Oil-seed & grain legume crops: importance, cultivation practices, varietal improvements & utilisation of crops such as castor bean, sunflower, sesame, coconuts, oil palm, mung bean, soybean, ground nuts and so forth.

AG3.12 Fruit Production

Fruit crops & plant propagation: history & classification of fruit crops, tropical & sub-tropical fruit production including botany, origin & distribution, cultural practices, propagation & harvesting. Principles: methodology of reproductive & vegetative propagation, plant multiplication, nursery & greenhouse management, layout & location.

AG3.13 Aquaculture

Includes sea. pond & river culture. Management of fish for breeding, nutrition, management & production, harvesting, processing & marketing.

AG3.14 Agroforestry

Definition & concept of agroforestry systems, implementation in the tropics, classification, distribution & ecology of agroforestry systems, project analysis, appraisal & valuation of agroforestry systems.

AG3.15 Research Methodology

Studies on statistical concepts & techniques in context of the principles of experimental design relevant to agricultural research. Project preparation, research requirements, and outlining of research draft. Farmers' field trials & research at experimental stations: design & execution.

AG3.16 Agricultural Law

Cambodian law relating to agricultural production, pesticide & herbicide use, poisonous substances & animal diseases. Law of contracts, taxation, inheritance & credit relating to farmers & consumers. Laws relating to fisheries.

AG3.17 Vegetable Production

Vegetable crops: history, classification, growth & management, cultivation practices, harvesting & marketing, economics of production, factors affecting yields & quality of the products, crop protection.

AG3.18 Weed Science

Weeds: economic importance, classification, ecology, methods of infestation, protection & eradication. Methods of control through cultivation, herbicide sprays, equipment used, etc.

AGRICULTURE - FOURTH YEAR (AGRONOMY SPECIALISATION)

AGA4.01 & AGA 4.02 Transcendental Meditation and TM-Sidhi program

The practice of the Transcendental Meditation – Sidhi program, including Yogic Flying for 50 minutes in the morning and afternoon. This advanced practice unfolds the students ability to think and act from transcendental consciousness. Thought and action become more powerful and effective—more fully supported by Natural Law—so that the student becomes increasingly competent to accomplish any objective without strain. Extensive research has shown that when practiced in a group, Yogic Flying creates a measurable influence of harmony and progress throughout society.

AGA4.03 Rubber Production

History of rubber growing in Cambodia & around the world. Its importance in nature & for Cambodia. Morphological & biological characteristics, ecology & rubber production, processing & laboratory & factory methods used in its production.

AGA4.04 Rice Production

Studies on rice production, morphological & biological characteristics of rice, ecology, breeding, agronomic factors in its growth, pest & weed control, seed production, harvesting, seed quality control & post-harvest care.

AGA4.05 Seed Technology

Seed structure & composition, seed development & maturation, seed drying, processing, testing, storage, multiplication, seed law & current seed usage in Cambodia.

AGA4.06 Pasture & Forage

History, classification, growth & reproduction of grasses & legumes. Symbiotic relationship between legumes & rhizobium. Soil nutrient needs of pastures; pasture establishment, maintenance & grazing; seed production; weed control & land improvement through pasture use.

AGA4.07 Farm Management

Fundamentals of farm management, organisation & efficiency of farm practice, decision making processes, risk & uncertainty, farm planning, basic farm recording & land tenure.

AGA4.08 Agricultural Economics

Farm accounting, study of markets, methods of price control & stabilisation, farmer unions & cooperatives, agricultural product price analysis, agricultural development economics, business ethics & government regulations.

AGA4.09 Rural Development – Concept & Practice

Characteristics of rural life, meanings and concepts of under-developed, developing and developed. Nature & definition of community, rural development & rural community development. Relationship between rural & urban planning & development. The concept, range, philosophy & purpose of community development. Needs of organisations concerned with community development. Field trip & report observing rural & community development projects.

AGA4.10 Agricultural Extension – Concepts & Practice

Extension teaching methods, their classification, selection & use of different approaches. Enlisting cooperation of local leaders & institutions in carrying out plans. Evaluation of extension methods & scope for their use. Field trip & report observing different extension methods & practices.

AGA4.11 Project Management & Planning

Basic concepts & definition of project planning, project cycle & project design. Writing a proposal, managing a team, fund management & management of the physical resources.

AGA4.12 Agro-Industry

Application of agro-industry for Cambodian agricultural products, food chemistry with the application of chemistry & biochemistry to agricultural products; food microbiology & hygiene. Packaging & marketing. Post-harvest physiology of raw products. Practical laboratory work to do with food when microbes are present, food spoilage, etc. Practical demonstrations of community based agro-industry for developing rural areas.

AGA4.13 Sustainable Agriculture

A theoretical & practical introduction to principles & applications of sustainable agricultural methods with emphasis on food production for self-sufficiency according to the natural cycles of nature. Students will study principles of Maharishi's Vedic Organic Agriculture and its importance for national poverty-removal.

AGA4.14 Food Processing & Storage

Introduction to food composition, standard & quality of food. Causes of food spoilage, theory & principles of food processing & preserving, fermentation, smoking, gassing, irradiation, boiling, frying, drying, low & high temperatures, preserving processed products & seed, & food storage.

AGA4.15 Agro-Tourism

Introduction to outdoor recreation, site design, construction & maintenance, facilities needs, trail walks, visitor health & safety (legal obligations, risk rating & water quality), visitor management techniques. Ornamental plants & trees: classification, cultivation, propagation, utilisation & marketing; floriculture in Cambodia. Landscape gardening: history, design , planning & techniques. Turf grass planting & management.

AGA4.16 Report Writing Skills

Procedures for writing experimental & scientific papers, project conceptualization & logical framework, methods of planning, how to table a research draft, entitling papers, analysing results, discussion, recommendation & conclusion.

AGRICULTURE – FOURTH YEAR (RURAL DEVELOPMENT SPECIALISATION)

AGR4.01 & AGR 4.02 Transcendental Meditation and TM-Sidhi program

The practice of the Transcendental Meditation – Sidhi program, including Yogic Flying for 50 minutes in the morning and afternoon. This advanced practice unfolds the students ability to think and act from transcendental consciousness. Thought and action become more powerful and effective—more fully supported by Natural Law—so that the student becomes increasingly competent to accomplish any objective without strain. Extensive research has shown that when practiced in a group, Yogic Flying creates a measurable influence of harmony and progress throughout society.

AGR4.03 Rural Social-Psychology

Overview of psychology, sociology & anthropology theories & approaches in understanding human personality & culture. Psychology for social development, social change, sociology of community groups & organisations.

AGR4.04 Primary Health Care

Theories, principles & issues of primary health care & its management. Focus on primary health care in developing countries, management of primary health care programs, such as vaccination programs, water sanitation, etc.

AGR4.05 Rural Economics

Basic concepts & theories in economics (concepts of supply & demand, marketing & accounting). Understanding household economics, micro-enterprises & systems or rural credit.

AGR4.06 Rural Development – Concept & Practice

Same as for AGA4.10

AGR4.07 Rural Development – Institutions & Policies

Polices of government, local government & institutions towards rural development. Rural development strategies & programs in Cambodia. Approaches used in other developing Asian countries.

AGR4.08 Communication

a) Communication Skills

Communication skills necessary to be effective in rural development & extension. understanding of the communication process, speaking to a group, participating in discussions & meetings, giving & writing instructions & memos.

b) Community Participation & organisation Approach

Working methods with groups & systems approach in community development. Methods used in the organisation of villagers into committees, groups & organisations to manage & maintain village development projects such as small-scale irrigation projects, rural roads & small businesses. How to mobilize people to work in these activities.

c) Leadership Qualities

Roles & responsibilities of leaders, working in groups. Approaches used in developing countries to develop leadership capacities of communities & to mobilize rural people in identifying & addressing their felt needs & problems. A facilitator's role & qualities.

AGR4.09 Natural Resource Management

Provides and overview of Cambodian natural resources & environmental issues in rural development. How proper management of these resources gives integrated & sustainable development in rural areas.

AGR4.10 Teaching, The Learning Process & Training Management

Techniques & the process of learning. Training management for rural development planning, designing, implementing & evaluating training courses for rural development workers & villagers. Management of training programs & techniques for rural development.

AGR4.11 Appropriate Technology for Rural Development

Appropriate technology in integrated rural development. Construction, operation & maintenance of physical & social infrastructures such as roads, irrigation facilities, schools, hospitals, etc. A survey of traditional & indigenous technologies used in villages.

AGR4.12 Project Management & Planning

Same as for AGA4.12

AGR4.13 Research Methods for Rural Development & Extension

Research methods to find out how the community can be best helped. The research process & basic methods of social science research with an emphasis on participatory research methodologies used in developing countries. Includes Rapid Rural Appraisal (RRA), Participatory Rural Appraisal (PRA), research designs & sampling techniques, data collection & analysis. Baseline surveying project & written report by students.

AGR4.14 Extension – Concepts & Practice

Same as for AGA4.11

AGR4.15 Training, Workshop Processes & Extension Tools

How to conduct training & workshops for extension personnel & farmers. Communication aids such as audio-visual aids & flipcharts, etc.

AGR4.16 Program Planning & Adaptation & Diffusion in Extension

Now new ideas & technologies are adopted by the farming community. How to plan extension programs for farmers. Nature, purpose & principles of program planning.

AGR4.17 Administration & Management in Extension

Managing information flow & adoption of new technology within the organisation & extension network in Cambodia. The type of administration & management practices that exist in present organisations. How that structure will change according to the nature of the organisation.

AGR4.18 Report Writing Skill

Same as for AGA4.17

AGRICULTURE – FOURTH YEAR (NATURAL RESOURCE MANAGEMENT SPECIALISATION)

AGN4.01 & AGN4.02 Transcendental Meditation and TM-Sidhi program

The practice of the Transcendental Meditation – Sidhi program, including Yogic Flying for 50 minutes in the morning and afternoon. This advanced practice unfolds the students ability to think and act from transcendental consciousness. Thought and action become more powerful and effective—more fully supported by Natural Law—so that the student becomes increasingly competent to accomplish any objective without strain. Extensive research has shown that when practiced in a group, Yogic Flying creates a measurable influence of harmony and progress throughout society.

AGN4.03 Natural Resource Management Policy

On completion of this subject students will be able to demonstrate a broad understanding of the uses and management of a variety of Cambodia's natural resources, particularly with public land and protected areas. The content includes the investigation of political, social, economic and cultural aspects of public land management, with an emphasis on government policies that set the framework for ecologically sustainable management. This includes the study of a range of issues such as biodiversity, wilderness, forest utilisation, indigenous people, cultural sites, ecotourism, threatened species, introduced species, management and planning practices, legislation and community relations.

AGN4.04 Protected Area Management (National Parks)

This unit concentrates on the policy, planning and management of National Parks and Protected Areas. The institutional arrangements for National Park and Protected Area management are first described from an international perspective, then focus on Cambodia. The historical background to National Parks and Protected Areas is described and the role of the International Union for the Conservation of Nature and Natural Resources (the IUCN or World Conservation Union) in describing and categorising Protected Areas globally along with approaches from various provincew, with emphasis on Angkor and current Protected Areas. Finally, the future of the Protected Area system, both internationally and nationally are raised for discussion.

AGN4.05 Principles of Coastal Resource Management

Provides students with an understanding of the structure, function and importance of coastal terrestrial ecosystems and their management. Emphasis is given to the response of coastal ecosystems to change and their relationship to each other in the landscape. Managers of coastal resources may be required to resolve issues of resource maintenance, control of impacts and conflicts between uses. Case studies show how management works in practice.

AGN4.06 Principles of Forest Management and Animal Conservation

Develops skills associated with the identification of flora and fauna, the structure and functioning of plant and animal community growth and survival, the understanding of their species composition, the design and conduct of flora and fauna surveys, and the use of this information to devise management and conservation programs.

AGN4.07 Forest Land Use and Management

Introduces the methodologies of land evaluation for forestry, by providing experience in the utilisation and preservation aspects of forest conservation in a regional context.

AGN4.08 Farm Forestry / Silviculture

This unit provides an understanding of the role of trees in agriculture ecosystems, and their place in the rural landscape. It also aims to illustrate the dual significance of integrated tree cropping for soil conservation and for diversifying and supplementing farm income. The second half of the block focuses on the policies and technologies that currently drive timber plantation investment and management. It will expose students to the theory behind the technologies and the practical problems involved in establishing and maintaining plantations of both native and exotic species.

AGN4.09 Water Resource Management

Examines methods of assessing water resource quantity and quality, the means of evaluating and presenting this information, and the links between management strategy, pricing and water conservation issues.

AGN4.10 Principles of Fish Resource Management and Conservation

This unit provides students with an understanding of the structure, function and importance of aquatic ecosystems in esuarine and freshwater environments and the need for their careful management

AGN4.11 Fish Farming / Aquaculture

Takes the principles of fish management and suggests the factors that need to be considered in analysing an aquaculture venture. The major and developing aquaculture industries in Cambodia are examined and will be discussed in terms of their success and potential. International aquaculture trends and techniques will also be examined using case studies as examples.

AGN4.12 Waste Technology and Management

The problems of waste technology are examined, with emphasis on classification of waste types and their impacts on the environment being determined. The unit will also discuss the current waste problems in Cambodia and possible ways these may be overcome, especially through education programs.

AGN4.13 Tourism Management and Environment / Ecotourism

This unit describes and analyses the policy, economic, social and environmental aspects of ecotourism in Cambodia (known as nature-based tourism). The environmental aspects include the examination of various techniques for environmental assessment, planning and recreation management. Ecotourism is also explored from the land/sea manager's perspective and that of the tour operators. Students take modules from a diverse range of topics describing natural features on which ecotourism is based; including national parks, wildlife, vegetation, coasts, geology, interpretation, forests and wetlands. Finally, students design an 'ecotour' and present it while assessing its economic, sound and ecological impact.

AGN4.14 Project Planning and Management

Same as for AGA4.12

AGN4.15 Land Use Planning

Examines planning as a technique for managing change in a variety of environments, including urban, rural and coastal areas. The social aspects of planning are an important component of the unit. Local as well as regional and international perspectives on planning issues are undertaken, utilising case studies and fieldwork where appropriate.

AGN4.16 Agriculture Marketing and Accounting

Same as for AGA4.08

AGN4.17 Report Writing Skill

Same as for AGA4.17