

**Agricultural Engineering** (67443321)

## Professional Diploma in Agricultural Engineering Bachelor of Agricultural Engineering

### Preliminary Course

#### **Diploma in General Engineering**

(First 6 months)(Foundation Year)

FE101 Engineering Mathematics (for Mathematics 1)  
FE102 Engineering Physics (For Physics 1)  
FE103 Engineering Workshop  
FE104 Engineering Drawing (For Technical Drawing)  
FE105 Sustainability

#### **Diploma in Agricultural Engineering**

## YEAR 1

6 credits/ unit x 5=30 Credits

**AGRE101 Chemistry (For General Chemistry) (6 Credit)**

To complete Chemistry

**AGRE 102 Statistics (For Basic Statics) (6 Credit)**

**AGRE 103 Botany (For Botany) (6 Credit)**

(To complete Science)

**AGRE 104 Computer (For Computer) (6 Credit)**

(To complete Software Design)

**AGRE105 Culture Plants (for Morphology of Culture Plants 1+2) (6 Credit)**

This subject consists of the following units taken from Australian Agricultural Training Package

**AHCNSY306** Implement a propagation plan

AHCNSY306 မျိုးပွား ဖြန့်ဖြူးရေးအစီအစဉ်ကိုအကောင်အထည်ဖော်ပါ

V55

**AHCORG403** Manage organic soil improvement

AHCORG403 အော်ဂဲနစ်မြေဆီလွှာတိုးတက်မှုကိုစီမံပါ

V56

**AHCPCM301** Implement a plant nutrition program

AHCPCM301 အပင်အာဟာရအစီအစဉ်ကိုအကောင်အထည်ဖော်ပါ

V57

**AHCPCM302** Provide information on plants and their culture

AHCPCM302 အပင်များနှင့်၎င်းတို့၏သဘာဝအကြောင်းသတင်းအချက်အလက်ပေးပါ

V58

**AHCPCM304** Report on health and condition of trees

AHCPCM304 သစ်ပင်၏ကျန်းမာရေးနှင့်အခြေအနေ

V59

The students will need to do internet research for the activities given by teachers

### Reference Textbook

The students will need to submit 20 pages study report by reading the reference book.

## Advanced Diploma in Agricultural Engineering

# YEAR 2

6 credits/ unit x 5=30 Credits

AGRE201 Analytical Chemistry (for Analytical Chemistry)( 6 credits)

ECh11011	Engineering Chemistry I
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The students will need to submit 20 pages study report by reading the reference book.

AGRE202 Organic Chemistry (for Organic Chemistry) ( 6 credits)

ChE 11001 Organic Chemistry

The students will need to submit 20 pages study report by reading the reference book.

AGRE203/CE115 Estimating (Civil Engineering) ( 6 credits)

**BAE 644-Estimating**

**BAE 690-Mechanical Estimating**

AGRE204 Meterology ( 6 credits)

Textbook

The students will need to submit 20 pages study report by reading the reference book.

AGRE205 General Civil Engineering for Agriculture ( 6 credits)

As part of Agricultural Engineering, the students are required to complete some units Diploma in Civil Engineering at Year 2

CE105 Hydraulics

CE-106 Brick Laying

CE107 Sanitation Water Supply

**Professional Diploma in Agricultural Engineering Technology  
Bachelor of Technology (Agricultural Engineering)**

**YEAR 3**

6 credits/ unit x 5=30 Credits

**AGRE301 Agriculture of Garden Plants (for Agriculture of Garden Plants) ( 6 credits)**

This subject consists of the following units taken from Australian Agricultural Training Package

AHCPHT306 ဟင်းသီးဟင်းရွက်သီးနှံများစိုက်ပျိုးပါ

V63

AHCPHT307 - Prepare raw materials and compost feedstock

AHCPHT307 - ကုန်ကြမ်းများနှင့်မွေးမြူရေးပစ္စည်းများပြင်ဆင်ပါ

V64

AHCPHT310 Coordinate horticultural crop harvesting

AHCPHT310 ဟင်းသီးဟင်းရွက်သီးနှံရိတ်သိမ်းမှုညှိနှိုင်းဆောင်ရွက်သည်

V65

The students will need to do internet research for the activities given by teachers

Reference Textbook

- horti2008

from the following link

The students will need to submit 20 pages study report by reading the reference book.

**AGRE302 Agriculture of Plantation Plants, Plant Feeding & Plant Protection for (Agriculture of Plantation Plants, Plant Feeding & Plant Protection) ( 6 credits)**

This subject consists of the following units taken from Australian Agricultural Training Package

AHCPGD301 Implement a plant establishment program

AHCPGD301 စက်ရုံတည်ထောင်ခြင်းအစီအစဉ်ကိုအကောင်အထည်ဖော်ပါ

V60

**AHCPHT303** Implement a post-harvest program

AHCPHT303 ရိတ်သိမ်းချိန်လွန်အစီအစဉ်ကိုအကောင်အထည်ဖော်ပါ

V61

**AHCPHT305** Regulate crops

AHCPHT305 ကောက်ပဲသီးနှံများကိုထိန်းညှိပါ

V62

**AHCPHT306** Establish horticultural crops

**AHCPMG301** Control weeds

AHCPMG301 ထိန်းချုပ်မှုပေါင်းပင်

V66

**AHCPMG302** Control plant pests, diseases and disorders

AHCPMG302 စက်ရုံပိုးမွှားများ၊ ရောဂါများနှင့်ရောဂါများကိုထိန်းချုပ်သည်

V67

**AHCPMG305** Survey pests

AHCPMG305 ပိုးမွှားစစ်တမ်း

V68

**AHCSS00027** Agricultural Chemical Skill Set.

AHCSS00027 စိုက်ပျိုးရေးဓာတုကျွမ်းကျင်မှုသတ်မှတ်။

V70

**AHCSS00074** Agricultural Chemical Skill Set.

AHCSS00074 စိုက်ပျိုးရေးဓာတုကျွမ်းကျင်မှုအစုံ။

V71

**AHCWHS301** Contribute to work health and safety processes

**AHCWHS401** Maintain work health and safety processes.

AHCWHS401 အလုပ်ကျွမ်းမာရေးနှင့်ဘေးကင်းရေးလုပ်ငန်းစဉ်များကိုထိန်းသိမ်းပါ။

V72

The students will need to do internet research for the activities given by teachers

### Reference Textbook

- AgriculturalProducts&YouPPT
- Gardening\_pleasures

from the following link

The students will need to submit 20 pages study report by reading the reference book.

### AGRE303 Agricultural Economy (for Agricultural Economy)

Read

- GlobalTrendsInAgriculture
- HumanNeeds&FoodProducts
- Conservation\_on\_private\_land

from the following link

The students will need to submit 20 pages study report by reading the reference book.

### AGRE303 Food Science and Technology ( 6 credits)

Read

- CareersinFoodSciencePPT
- HumanNeeds&FoodProducts
- Sustainable Agriculture

from the following link

### Video

Read any two textbooks  
from the following link

The students will need to submit 20 pages study report by reading the reference book.

### AGRE304 Agricultural Ecology ( 6 credits)

Read

- Agriculture\_and\_Ecosystems-Lesson

from the following link

The students will need to submit 20 pages study report by reading the reference book.

### AGRE305 Plant Physiology ( 6 credits)

Read

The students will need to submit 20 pages study report by reading the reference book.

## Professional Diploma in Agricultural Engineering

## Bachelor of Engineering (Agricultural Engineering)

# YEAR 4

6 credits/ unit x 5=30 Credits

### AGRE401 Agricultural Water and Drainage (6 Credits)

**CPCPCM3022A** Weld polyethylene and polypropylene pipes using fusion method

**CPCPCM3023A** Fabricate and install non-ferrous pressure piping

**CPCPCM4012A** Estimate and cost work

**CPCPDR2021A** Locate and clear blockages.

**CPCPDR2022A** - Install domestic treatment plants

**CPCPDR2023A** Maintain effluent disinfection systems

**CPCPDR2024A** Install stormwater and sub-soil drainage systems

**CPCPDR2025A** Drain work site

**CPCPDR2026A** Install prefabricated inspection openings and enclosures

**CPCPDR3021A** Plan layout of a residential sanitary drainage system

**CPCPDR3022A** - Install below ground sanitary drainage systems.

**CPCPDR3023A** - Install on-site disposal systems

**CPCPFS3031A** - Fabricate and install fire hydrant and hose reel systems

**CPCPSN3025A** Install pre-treatment facilities.

**CPCPWT3020A** - Connect and install storage tanks to a domestic water supply

**CPCPWT3021A** Set out and install water services.

**CPCPWT3022A** - Install and adjust water service controls and devices.

**CPCPWT3023A** - Install and commission water heating systems

**CPCPWT3025A** Install water pumpset

**CPCPWT3027A** Connect irrigation systems from drinking water supply

**CPCPWT4011B** Design and size heated and cold water services and systems.

**RIICBS208D** Conduct road maintenance operations

**RIICBS303D** - Conduct materials transfer vehicle operations

**RIICCM201D** - Carry out measurements and calculations

**RIICCM202D** – Identify, locate and protect underground services

**RIICCM203D** - Read and interpret plans and job specifications

**RIICCM205D** Carry out manual excavation

**RIICCM206D** - Support plant operations

**RIICCM207D** - Spread and compact materials manually

**RIICCM208D** Carry out basic levelling.

**RIICCM209D** Carry out concrete work.

**RIICCM210D** - Install trench support

**RIICCM211D** - Erect and dismantle temporary fencing and gates

**RIICCM301D** Construct and dismantle fences and gates

**RIICPL301D** Install water mains pipelines

**RIICPL302D** Install stormwater systems

**RIICPL303D** Install sewer pipelines

**RIICRC203D** Install sub-soil drainage.

**RIICRC204D** Install and maintain roadside fixtures.

**RIICRC208D** - Lay pipes

**RIICRC301D** Maintain drainage system

**RIICRC304D** Maintain sealed road

The students will need to submit 20 pages study report by viewing the reference videos

Read



- water\_sampling
- Water sampling and analysis
- Surface water sampling methods and analysis

from the following link

(Note when you Unzip, some files need to be skipped)

The students will need to submit 20 pages study report by reading the reference book

#### AGRE402 General Zootechnics (6 Credits)

This subject consists of the following units taken from Australian Agricultural Training Package

Video

Read

- Animal Handling and Transport

from the following link

The students will need to submit 20 pages study report by reading the reference book

#### AGRE403 Agricultural Mechanisation

As part of this subject, the students will need to do some Mechanical Units

ME101 Applied Mechanics

ME108 Principle of Engine

ME103 Engineering Mechanics

ME104 Machine Principle

ME106 Electrical Principle

ME102+107 Engineering Thermodynamics

ME334 Airconditioning and Refrigeration

ME234 Wind Energy Conversion System

Read

- Agricultural\_Process\_Engineering

from the following link

The students will need to submit 20 pages study report by reading the reference book

AGRE403 Soil Knowledge (6 Credits)

AHCSOL401 Sample soils and interpret results

AHCSOL401 မြေဆီလွှာကိုနမူနာယူပြီးရလဒ်များကိုဘာသာပြန်ပါ  
V69

Read

- Conservation\_on\_private\_land

from the following link

The students will need to submit 20 pages study report by reading the reference book

AGRE404 Brand Management (6 Credits)

As part of this subject, the students will need to study some units from Diploma in Management Program

Study

- Mgt101 Management ,
- Mgr105 Quality Management

BAE608 Engineering Competency Demonstration Report (6 Credits)

