

Detailed work schedule: Student Mobility Program UCIARS, Sri Lanka and Southwest University, China

Day 01: 20.07.2025

Site visit UCIARS farm and the Institute premises

Day 01: 21.07.2025

Common Session: Inauguration ceremony & General Introduction

Location: UCIARS Lecture Hall & UCIARS Farm

Interactive lectures 4 ½ Hours, Field exposure 3 Hours

| Time | Activity | Description |
|------------------|--|--|
| 8.00 – 9.30 AM | Inauguration ceremony | |
| 9.30 – 10:00 AM | Introduction about the program | Opening remarks, program overview, and icebreaker with Sri Lankan students. |
| 10:00 – 12:00 PM | Lecture: Overview of Sri Lankan Agriculture sector | Agro-ecological zones, Major crops, crop production, major export, engagement of labor force. |
| 12:00 – 1:00 PM | Lunch Break | Lunch and informal interaction. |
| 1.00 – 2.30 PM | Lecture: Dry Zone Agriculture in Sri Lanka | Cropping systems, Paddy cultivation, traditional practices and irrigation systems. |
| 2:30 – 3.00 PM | Interactive Discussion | Comparison with Chinese practices, climate adaptation, and irrigation systems. |
| 3.00 - 6.00 PM | Farm Visit & Demonstrations | Guided tour of paddy fields, chena plots, traditional irrigation structures, and Q&A with farm staffs. |

Day 02: 22.07.2025

Module: Plant In-vitro Propagation

Location: Tissue Culture Research and Development Laboratory lecture hall, UCIARS

Theory (6 1/2 Hours)

| Time | Activity | Description |
|------------------|---|---|
| 8:30 – 10:00 AM | Introductory Lecture | Introduction to plant tissue culture technology |
| 10:00 – 12:30 AM | In-vitro propagation technology | Basics and steps of in-vitro propagation technology |
| 12:30 – 1:30 PM | Lunch Break | — |
| 1:30 – 3:30 PM | Tissue culture oriented laboratory designs | Design productive laboratory designs for tissue cultured plants mass production |
| 3:30 – 4:00 PM | Low-cost input for Tissue culture productions | Readily available inputs and utilization for low cost plant productions |
| 4:00 – 5:00 PM | Tissue culture contaminations | Discussion on microbial and chemical contaminations as major constraints of the tissue culture industry |
| 5:00 – 6:00 PM | Noval technologies in plant tissue culture | Introduction to Bio-reactor technology, Artificial Intelligent used in tissue culture productions |

Day 03: 23.07.2025

Topic: Assessing Daily Crop Water Requirement of Paddy Under Irrigated Conditions in Dry Zone Sri Lanka

| Morning Session – Theory (4 Hours) | | Venue : UCIARS Lecture Hall |
|--|--|---|
| Time | Topic | Description |
| 8:30 – 9:15 AM | Paddy Cultivation in Sri Lanka: Historical & Traditional Context | Overview of Sri Lanka’s ancient irrigation systems (e.g., wewas – tanks, canal systems), bethma system (traditional water-sharing), rain-fed vs irrigated rice farming. Highlight traditional water conservation ethics. |
| 9:15 – 10:00 AM | Modern Irrigation in Dry Zone Sri Lanka | Introduction to current practices in major irrigation schemes (e.g., Mahaweli, Kalawewa), seasonal planning (Yala & Maha), role of Department of Agrarian Development. |
| 10:00 – 10:15 AM | Tea Break | — |
| 10:15 – 11:00 AM | Comparison: Paddy Water Management in Sri Lanka vs China | Discuss: <ul style="list-style-type: none"> • Scale and mechanization differences • Water management policies in Chinese rice paddies (e.g., AWD) • Use of technology and AI in China vs traditional-integrated methods in Sri Lanka |
| 11:00 – 12:30 PM | Brief on present research study | Previous studies, Collaboratives, Hypothesis of the present study, Objectives, methodologies, expected outcomes. |
| Afternoon Session – Practical (4 Hours) | | Venue : UCIARS Paddy Field |
| 1:30 – 2:00 PM | Field Orientation | Safety briefing, student group assignment, explain daily duties, tools, and measurement kits. |
| 2:00 – 3:30 PM | Cultural Agronomy Practice | Demonstration of traditional practices: transplanting methods, bund preparation, water management without pumps. Encourage discussion with field staff. |
| 3:30 – 4:00 PM | Data Collection: Lysimeter & Environmental Observations | <ul style="list-style-type: none"> • Staff gauge to measure water height in the paddy field • 3 Barrels in paddy field • 3 stilling wells inside the masonry chamber • E piezometers • Standard rain gauge |
| 4:00 – 5:00 PM | Data Entry & Reflection | Students enter data into Excel/logbook, reflect on measurements, and discuss how Sri Lankan practices could inspire sustainable irrigation in other regions. |
| 5:00 – 5:30 PM | Wrap-up & Q&A | Open floor for students to ask questions, share their thoughts about differences between Sri Lanka and China, and provide daily feedback. |

Day 04: 24.07.2025

Module: Plant In-vitro Propagation

Location: Tissue Culture Research and Development Laboratory, UCIARS

Total Hours: 7 Hours Practical session

| Time | Activity | Description |
|------------------|--|---|
| 8:30 – 10:00 AM | Tissue culture instrumentations | Introduction to machinery and instruments used in plant tissue culture technology with working principles and standards |
| 10:00 – 12:30 AM | Laminar Air Flow cabinet handling principles | Practical exposure on tool handling in the Laminar Air Flow cabinet |
| 12:30 – 1:30 PM | Lunch Break | — |
| 1:30 – 4:30 PM | Ex-plant preparation techniques | Practical exposure to preparation of ex-plants – Nodal culture |

Day 05: 25.07.2025

Module: Plant In-vitro Propagation

Location: Tissue Culture Research and Development Laboratory, UCIARS

Total Hours: 1 1/2 Hours Theory + 6 Hours Practical session

| Time | Activity | Description |
|------------------|--|---|
| 8:30 – 10:00 AM | Physical visit to Tissue culture production laboratory | Identification of various units of the laboratory and observation visit of staff activities |
| 10:00 – 11:30 AM | Stock solution preparation | Formulating procedures of basic salts as nutrients |
| 11:30 – 12:30 AM | Stock solution preparation | Practical exposure to stock solution preparation |
| 12:30 – 1:30 PM | Lunch Break | — |
| 1:30 – 5:00 PM | Murashige & Skoog standard basic salt medium preparation | Practical exposure to MS medium preparation |

Day 06 and 07: 26/27.07.2025

Hollyday program

Day 08: Date: 28.07.2025

Pre-Visit Orientation & Initial Field Visit

Location: UCIARS Lecture Hall & Walawe River Basin Cascade Systems

Total Hours: 4 Hours Theory + 4 Hours Field visit

| Time | Activity | Description |
|------------------|--------------------------------|---|
| 8:30 – 10:00 AM | Introductory Lecture | Overview of the Sri Lankan Cascade System: History, Function, and Modern Relevance |
| 10:00 – 11:30 AM | Comparative Analysis Session | China vs. Sri Lanka: Traditional Irrigation Techniques and Climate Adaptation Strategies |
| 11:30 – 12:30 PM | Assigned Readings & Group Task | Distribution of background materials and short group research themes |
| 12:30 – 1:30 PM | Lunch Break | — |
| 1:30 – 2:00 PM | Field Briefing | Safety instructions, field protocol, and team arrangements |
| | Field Visit | Visit to selected tanks and canals in the Walawe River Basin. Observation and documentation of cascade components |
| 2:00 – 6:00 PM | Field Demonstration | Hands-on experience: water flow measurements, and biodiversity observation |
| | Stakeholder Engagement | Discussion with farmers and local officers on irrigation challenges and climate change adaptation |

Day 09: 29.07.2025

Module: Plant In-vitro Propagation

Location: Tissue Culture Research and Development Laboratory, UCIARS

Total Hours: 8 Hours Practical session

| Time | Activity | Description |
|------------------|---------------------------------|---|
| 8:30 – 10:00 AM | Ex-plant preparation techniques | Practical exposure to preparation and sterilizing of ex-plants – Callus culture |
| 10:00 – 12:30 AM | Ex-plant induction protocols | Practical exposure to establishment protocols of ex-plants – Callus culture |
| 12:30 – 1:30 PM | Lunch Break | — |
| 1:30 – 2:30 PM | Ex-plant preparation techniques | Practical exposure to preparation and sterilizing of ex-plants – Seed culture |
| 2:30 – 5:30 PM | Ex-plant induction protocols | Practical exposure to establishment protocols of ex-plants – Seed culture |

Day 10: 30.07.2025

Module: Plant In-vitro Propagation

Location: Tissue Culture Research and Development Laboratory, UCIARS

Total Hours: 9 Hours Practical session

| Time | Activity | Description |
|------------------|--|---|
| 8:30 – 10:00 AM | Ex-plant preparation techniques | Practical exposure to preparation and sterilizing of ex-plants – Meristem culture |
| 10:00 – 12:30 AM | Ex-plant induction protocols | Practical exposure to establishment protocols of ex-plants – Meristem culture |
| 12:30 – 1:30 PM | Lunch Break | — |
| 1:30 – 5:30 PM | Subculturing techniques of banana tissue culture | Practical exposure to banana tissue establishment in proliferation & rooting medium |
| 5:30 – 6:30 PM | Acclimatization of tissue cultured banana plants | Practical exposure to banana plant acclimatization through protected house techniques |

Day 11: 31.07.2025 - Closing ceremony

Program: Final Reflections & Closing Ceremony

Duration: 5 Hours (8:30 AM – 1:30 PM)

Location: UCIARS Lecture Hall

| Time | Activity | Description |
|---------------------|-----------------------------------|--|
| 8:30 – 9:30 AM | Final Group Presentations | Student teams (Chinese & Sri Lankan) present findings and reflections from field visits and collaborative surveys. |
| 9:30 – 10:30 AM | Panel Feedback Session | Academic panel provides feedback on student presentations, field experience, and collaborative learning outcomes. |
| 10:30 – 11:00 AM | Closing ceremony and Tea Break | Informal mingling and photo session. |