

Government of Pakistan
National Vocational and Technical Training Commission

Prime Minister's Hunarmand Pakistan Program

"Skills for All"



Course Contents / Lesson Plan

Course Title: Citrus Production

Duration: 6 Months

Revised Edition

Trainer Name	
Course Title	Citrus Production
Objectives and Expectations	<p>Employable skills and hands-on practice for Citrus Production</p> <p>This course offers a broad, cross-disciplinary learning experience for students looking to pursue career in Citrus Production. The needs for Citrus Production have increased in keeping with the demands for a wide variety of performances such as high productivity, high quality, as well as labor and cost savings. This course will provide participants with an integrated approach to learn about the various aspects of Citrus Production technologies. The course will introduce various processes such as land preparation, nursery raising techniques, nursery transplantation, fertigation and harvesting.</p> <p><u>Main Expectations:</u></p> <p>In short, the course under reference should be delivered by professional instructors in such a robust hands-on manner that the trainees are comfortably able to employ their skills for earning money (through wage/self-employment) at its conclusion.</p> <p>This course thus clearly goes beyond the domain of the traditional training practices in vogue and underscores an expectation that a market-centric approach will be adopted as the main driving force while delivering it. The instructors should therefore be experienced enough to be able to identify the training needs for the possible market roles available out there. Moreover, they should also know the strengths and weaknesses of each trainee to prepare them for such market roles during/after the training.</p> <ol style="list-style-type: none"> i. Specially designed practical tasks to be performed by the trainees have been included in the Annexure-I to this document. The record of all tasks performed individually or in groups must be preserved by the management of the training Institute clearly labeling name, trade, session, etc. so that these are ready to be physically inspected/verified through monitoring visits from time to time. The weekly distribution of tasks has also been indicated in the weekly lesson plan given in this document. ii. To materialize the main expectations, a special module on <u>Job Search & Entrepreneurial Skills</u> has been included in the latter part of this course (5th & 6th month) through which, the trainees will be made aware of the Job search techniques in the local as well as international job markets (Gulf countries). Awareness around the visa process and immigration laws of the most favored labor destination countries also form a part of this module. Moreover, the trainees would also be encouraged to venture into self-employment and exposed to the main requirements in this regard. It is also expected that a sense of civic duties/roles and responsibilities will also be inculcated in the trainees to make them responsible citizens of the country. iii. A module on <u>Work Place Ethics</u> has also been included to highlight the importance of good and positive behavior in the workplace in the line with the best practices elsewhere in the world. An outline of such

qualities has been given in the Appendix to this document. Its importance should be conveyed in a format that is attractive and interesting for the trainees such as through PPT slides +short video documentaries. Needless to say, that if the training provider puts his heart and soul into these otherwise non-technical components, the image of the Pakistani workforce would undergo a positive transformation in the local as well as international job markets.

To maintain interest and motivation of the trainees throughout the course, modern techniques such as:

- Motivational Lectures
- Success Stories
- Case Studies

These techniques would be employed as an additional training tool wherever possible (these are explained in the subsequent section on Training Methodology).

Lastly, evaluation of the competencies acquired by the trainees will be done objectively at various stages of the training and a proper record of the same will be maintained. Suffice to say that for such evaluations, practical tasks would be designed by the training providers to gauge the problem-solving abilities of the trainees.

(i) Motivational Lectures

The proposed methodology for the training under reference employs motivation as a tool. Hence besides the purely technical content, a trainer is required to include elements of motivation in his/her lecture. To inspire the trainees to utilize the training opportunity to the full and strive towards professional excellence. Motivational lectures may also include general topics such as the importance of moral values and civic role & responsibilities as a Pakistani. A motivational lecture should be delivered with enough zeal to produce a deep impact on the trainees. It may comprise of the following:

- Clear Purpose to convey the message to trainees effectively.
- Personal Story to quote as an example to follow.
- Trainees fit so that the situation is actionable by trainees and not represent a just idealism.
- Ending Points to persuade the trainees on changing themselves.

A good motivational lecture should help drive creativity, curiosity, and spark the desire needed for trainees to want to learn more.

The impact of a successful motivational strategy is amongst others commonly visible in increased class participation ratios. It increases the trainees' willingness to be engaged on the practical tasks for a longer time without boredom and loss of interest because they can see in their mind's eye where their hard work would take them in short (1-3 years); medium (3 -10 years) and long term (more than 10 years).

As this tool is expected that the training providers would make arrangements for regular well planned motivational lectures as part of a coordinated strategy interspersed throughout the training period as suggested in the weekly lesson plans in this document.

Course-related motivational lectures online link is available in **Annexure-II**.

(ii) Success Stories

Another effective way of motivating the trainees is using Success Stories. Its inclusion in the weekly lesson plan at regular intervals has been recommended till the end of the training.

A success story may be disseminated orally, through a presentation, or using a video/documentary of someone that has risen to fortune, acclaim, or brilliant achievement. A success story shows how a person achieved his goal through hard work, dedication, and devotion. An inspiring success story contains compelling and significant facts articulated clearly and easily comprehensible words. Moreover, it is helpful if it is assumed that the reader/listener knows nothing of what is being revealed. The optimum impact is created when the story is revealed in the form of:-

- Directly in person (At least 2-3 cases must be arranged by the training institute)
- Through an audio/ videotaped message (2-3 high-quality videos must be arranged by the training institute)

It is expected that the training provider would collect relevant high-quality success stories for inclusion in the training as suggested in the weekly lesson plan given in this document.

Suggestive structure and sequence of a sample success story and its various shapes can be seen in **Annexure III**.

(iii) Case Studies

Where a situation allows, case studies can also be presented to the trainees to widen their understanding of the real-life specific problem/situation and to explore the solutions.

In simple terms, the case study method of teaching uses a real-life case example/a typical case to demonstrate a phenomenon in action and explain theoretical as well as practical aspects of the knowledge related to the same. It is an effective way to help the trainees comprehend in depth both the theoretical and practical aspects of the complex phenomenon in depth with ease. Case teaching can also stimulate the trainees to participate in discussions and thereby boost their confidence. It also makes the classroom atmosphere interesting thus maintaining the trainee interest in training till the end of the course.

Depending on suitability to the trade, the weekly lesson plan in this document may suggest case studies be presented to the trainees. The trainer may adopt a PowerPoint presentation or video format for such case studies whichever is deemed suitable but only those cases must be selected that are relevant and of a learning value.

The Trainees should be required and supervised to carefully analyze the cases.

For this purpose, they must be encouraged to inquire and collect specific information/data, actively participate in the discussions, and intended solutions to the problem/situation.

Case studies can be implemented in the following ways: -

- i. A good quality trade-specific documentary (At least 2-3

	<p>documentaries must be arranged by the training institute)</p> <p>ii. Health & Safety case studies (2 cases regarding safety and industrial accidents must be arranged by the training institute)</p> <p>iii. Field visits (At least one visit to a trade-specific major industry/ site must be arranged by the training institute)</p>
Entry-level of trainees	Matric
Learning Outcomes of the course	<p>By the end of this course, students will be able to:</p> <ul style="list-style-type: none"> • Demonstrate and understanding of appreciation for the importance of the impact of globalization and diversity in Citrus producing organizations. • Understand Industry Demand and Production requirement • Demonstrate latest production techniques for quality production • Understand various Orchard designs • Demonstrate innovation of citrus production Industry • Demonstrate the ability to communicate effectively both orally and in writing. • Students will be able to recognize and examine the relationships between inputs and outputs in the Citrus producing areas to make effective and profitable decisions.
Course Execution Plan	<p>The total duration of the course: 6 months (26 Weeks)</p> <p>Class hours: 4 hours per day</p> <p>Theory: 20%</p> <p>Practical: 80%</p> <p>Weekly hours: 20 hours per week</p> <p>Total contact hours: 520 hours</p>
Companies offering jobs in the respective trade	<ol style="list-style-type: none"> 1. Private Citrus growers 2. Citrus research institute (Government) 3. Citrus Processing Industry 4. Citrus Exporters 5. Beverage Industry 6. PHA 7. Nestle 8. Mitchells
Job Opportunities	<p>All over the world there is a high demand in the Citrus Producing firms for skilled labor in fruit production. With the help of this course, we will be able to give technical trainings of Advance Citrus production to our youth. There are also opportunities for start-up entrepreneurship due to the high demand in the market in following designated jobs;</p> <ul style="list-style-type: none"> • Citrus Farm Supervisor • Field Assistant for citrus production • Citrus grower • Spray man
No. of Students	25

Learning Place	Classroom / Lab / Field
Instructional Resources	<ol style="list-style-type: none">1. Turshawa phallon ki kaasht by Iqbal khan2. Citrus Production by ScienceDirect3. Citrus production, Post-Harvest, Disease and Pest Management by S Mukhopadhyay4. Citrus Production Manual by Louise Ferguson and Elizabeth Elliot Grafton-Cardwell5. Citrus - Health Benefits and Production Technology by M. Sajid6. Orange Book by Tetra Pak Pakistan

MODULES

Scheduled Weeks	Module Title	Learning Units	Remarks
Week 1	<p>Orientation/Course Introduction</p> <p>Introduction of basic Agricultural Practices (Citrus Production)</p>	<ul style="list-style-type: none"> • Motivational Lecture (<i>For further detail please see Page No: 3 & 4</i>) • Job market • Course Applications • Institute/work ethics • Describe basic course introduction. • Describe the role of Agriculture in the Economic Development of a country. • Describe the importance of Citrus production in Pakistan's economy. • Describe standards for quality production of Citrus • Identify and describe personal protective equipment (PPE) related to the Citrus production. 	<ul style="list-style-type: none"> • Task 1 • Task 2 • Task 3 <p><u>Details may be seen at Annexure-I</u></p>
Week 2	<p>Introduction to Citrus Production</p>	<ul style="list-style-type: none"> • Success stories (<i>For further detail please see Page No: 3 & 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Describe limitation for quality production of citrus • Enlist major distributors of citrus in Pakistan. • Enlist major producers of citrus in Pakistan. • What is the importance of growers and distributors in trade? • Describe citrus marketing strategies • Identify various Citrus varieties • Understand production technology of various Citrus varieties 	<ul style="list-style-type: none"> • Task 4 <p><u>Details may be seen at Annexure-I</u></p>
Week 3	<p>Introduction to Soil Preparation</p>	<ul style="list-style-type: none"> • Motivational Lecture(<i>For further detail please see Page No: 3 & 4</i>) • Students are introduced to: 	<ul style="list-style-type: none"> • Task 5 <p><u>Details may be seen at</u></p>

		<ul style="list-style-type: none"> Identify and describe Soil properties: <ul style="list-style-type: none"> ✓ Define PH of soil ✓ Define EC of soil ✓ Define Soil Aeration and drainage ✓ Define Soil Moisture ✓ Define Soil Organic matter Soil sampling techniques Sample collection and processing according to standard method Purpose of soil testing and analysis Selection of field Storage of soil sample Identify and describe Soil and its types. Identify and describe the Sandy soil Identify and describe Clayey/heavy soil Identify and describe Loamy/productive soil 	<u>Annexure-I</u>
Week 4	Identification of Tools	<ul style="list-style-type: none"> Success stories (For further detail please see Page No: 3 & 4) Students are introduced to: <ul style="list-style-type: none"> Identification and selection of various tools and equipment For land preparation For nursery raising Harvesting Operating the tools and equipment Calibration of equipment 	<ul style="list-style-type: none"> Task 6 <u>Details may be seen at Annexure-I</u> Monthly Test 1
Week 5	Soil Preparation for Citrus production	<ul style="list-style-type: none"> Motivational Lecture(For further detail please see Page No: 3& 4) Students are introduced to: <ul style="list-style-type: none"> Identify basic tillage implements for soil preparation Principles and practices involved in soil preparation Ploughing methods Soil levelling through Laser land leveler Soil treatment for citrus production 	<ul style="list-style-type: none"> Task 7 <u>Details may be seen at Annexure-I</u>
Week 6	Layout of Citrus orchard-I	<ul style="list-style-type: none"> Success stories (For further detail please see Page No: 3 & 4) Students are introduced to: <ul style="list-style-type: none"> Describe Layout Explain various Layouts <ul style="list-style-type: none"> ✓ Rectangular 	<ul style="list-style-type: none"> Task 8 <u>Details may be seen at Annexure-I</u>

		<ul style="list-style-type: none"> ✓ Square ✓ Quincunx ✓ High Density ✓ Low density ✓ Ultra-High Density • Implement Orchard Layouts according to <ul style="list-style-type: none"> ✓ Rectangular system ✓ Square system ✓ Quincunx system 	
Week 7	Layout of Citrus orchard-II	<ul style="list-style-type: none"> • Motivational Lecture(<i>For further detail please see Page No: 3& 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Selection of appropriate layout according to crop requirement • Implementation of orchard layout according to <ul style="list-style-type: none"> ✓ High Density system ✓ Low density system ✓ Ultra-High-Density system 	<ul style="list-style-type: none"> • Task 9 <p><i><u>Details may be seen at Annexure-I</u></i></p>
Week 8	Introduction of Citrus nursery propagation techniques-I	<ul style="list-style-type: none"> • Success stories (<i>For further detail please see Page No: 3 & 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Describe Propagation • Selection of Seeds • Extraction of seed from fruit • Describe and identify tools and equipment required for nursery propagation • Understand various Citrus propagation techniques 	<ul style="list-style-type: none"> • Task 10 <p><i><u>Details may be seen at Annexure-I</u></i></p> <ul style="list-style-type: none"> • Monthly Test 2
Week 9	Introduction of Citrus nursery propagation techniques-II	<ul style="list-style-type: none"> • Motivational Lecture(<i>For further detail please see Page No: 3& 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Selection of mother plants • Describe Citrus propagation through asexual means include : <ul style="list-style-type: none"> ✓ Grafting ✓ Budding ✓ Layering ✓ Tissue culturing • Understand principles and practices involved in citrus propagation in Screen 	<ul style="list-style-type: none"> • Task 11 <p><i><u>Details may be seen at Annexure-I</u></i></p>

		<p>house</p> <ul style="list-style-type: none"> • Explain various Nursery management techniques 	
Week 10	Transplantation of Plants	<ul style="list-style-type: none"> • Success stories (For further detail please see Page No: 3 & 4) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Describe Transplantation • Describe and identify tools and equipment required for plant transplantation • Understand various methods of transplantation • Describe steps involved in plant transplantation of citrus 	<ul style="list-style-type: none"> • Task 12 <p><u>Details may be seen at Annexure-I</u></p>
Week 11	Management of Citrus crop in high and Ultra high-density system	<ul style="list-style-type: none"> • Motivational Lecture (For further detail please see Page No: 3 & 4) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Identify tools and implements involved in management of plants in high and ultra-high density system • Perform Training of plant according to high density system • Perform Training of plant according to Ultra high-density system • Perform periodic pruning to maintain plant health in high and ultra-high-density system 	<ul style="list-style-type: none"> • Task 13 <p><u>Details may be seen at Annexure-I</u></p>
Week 12	Orchard Irrigation System-I	<ul style="list-style-type: none"> • Success stories (For further detail please see Page No: 3 & 4) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Describe Irrigation • Describe and identify tools and equipment required for Irrigation • Explain various types of Irrigation 	<ul style="list-style-type: none"> • Task 14 <p><u>Details may be seen at Annexure-I</u></p>

		<p>systems include :</p> <ul style="list-style-type: none"> ✓ Drip Irrigation ✓ Basin Irrigation ✓ Sprinkler Irrigation ✓ Flood Irrigation ✓ Center Pivot Irrigation <ul style="list-style-type: none"> • Layout flood irrigation system • Layout basin irrigation system 	
	Start Preparing your portfolio	<ul style="list-style-type: none"> • Motivational Lecture(<i>For further detail please see Page No: 3& 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • the concept of design portfolios • the concept of present design work/projects in a professional manner • websites that provide free portfolio hosting such as Bedance and Dribble • creating a portfolio • how to select work for presenting in your portfolio 	
	Build your CV	<p>Download professional CV template from any good site (https://www.coolfreecv.com or relevant)</p> <ul style="list-style-type: none"> • Add Personal Information • Add Educational details • Add Experience/Portfolio • Add contact details/profile links 	
Week 13	Midterm		
Week 14	Orchard Irrigation System-II	<ul style="list-style-type: none"> • Success stories (<i>For further detail please see Page No: 3& 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Install and operate Drip Irrigation system • Install and Operate Sprinkler Irrigation system • Operate Center Pivot system • Describe Delta of water for Citrus • Explain Citrus irrigation scheduling 	<ul style="list-style-type: none"> • Task 15 <p><i><u>Details may be seen at Annexure-I</u></i></p>
Week 15	Perform tree shape management-I	<ul style="list-style-type: none"> • Motivational Lecture (<i>For further detail please see Page No: 3& 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Pruning and training technique • Describe and identify tools and equipment required for Pruning and 	<ul style="list-style-type: none"> • Task 16 <p><i><u>Details may be seen at Annexure-I</u></i></p>

		<p>training</p> <ul style="list-style-type: none"> • Explain principles involved in Pruning and Training Techniques • Explain accurate time and frequency of pruning and training • Operate pruning and training tools 	
	Introduction to Freelancing	<ul style="list-style-type: none"> • Motivational Lecture <i>(For further detail please see Page No: 3& 4)</i> <p>Students are introduced to:</p> <ul style="list-style-type: none"> • the concept of freelancing • how to become freelance and create a sustainable income • pros and cons of freelancing • the ethical and professional way of becoming a productive freelancer • resources available for freelancing in the field of design • how to join freelancing sites • the process of creating a freelancing profile 	
	Create an account profile on Fiverr (at least two gigs) and Upwork	<p>Create an account by following these steps:</p> <p>Step 1: Personal Info Step 2: Professional Info Step 3: Linked Accounts Step 4: Account Security</p>	
Week 16	Perform tree shape management-II	<ul style="list-style-type: none"> • Success stories <i>(For further detail please see Page No: 3& 4)</i> <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Understand various types of Training and Pruning: <ul style="list-style-type: none"> ✓ Topping ✓ Shaping ✓ Suckering ✓ Removing Gourmands ✓ Canopy Thinning ✓ Canopy Rejuvenation ✓ Skirt Pruning • Describe Benefits of pruning • Explain Post pruning care practices 	<ul style="list-style-type: none"> • Task 17 <p><i><u>Details may be seen at Annexure-I</u></i></p>
Week 17	Weed Management	<ul style="list-style-type: none"> • Motivational Lecture <i>(For further detail please see Page No: 3& 4)</i> <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Describe Weeds • Describe and identify tools and equipment required for Weed management 	<ul style="list-style-type: none"> • Task 18 <p><i><u>Details may be seen at Annexure-I</u></i></p> <ul style="list-style-type: none"> • Monthly

		<ul style="list-style-type: none"> • Identify weeds grown in Citrus area • Understand weed control strategies for Citrus • Perform mechanical weeding • Perform manual weeding • Prepare weedicide solutions • Describe and schedule Time of control of weeds • Describe Record keeping of weedicides at farm level • Undertake health and safety guidelines involved in weed management strategies 	Test 3
Week 18	Insect Pest Management-I	<ul style="list-style-type: none"> • Success stories (<i>For further detail please see Page No: 3 & 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Understand Insect Pest • Identify Major and Minor pests of citrus • Describe and identify tools and equipment required for Insect Pest Management • Understand Insect Pest Management (IPM) • Perform Pest Scouting • Describe Mode of action of Citrus pest • Explain Economic threshold level (ETL) of Citrus Pests • Understand types of pest scouting in citrus area: <ul style="list-style-type: none"> ✓ Marrio's method ✓ Zig zag method ✓ Square method ✓ Diagonal method 	<ul style="list-style-type: none"> • Task 19 • Task 20 <p><i>Details may be seen at Annexure-I</i></p>
Week 19	Insect Pest Management-II	<ul style="list-style-type: none"> • Motivational Lecture (<i>For further detail please see Page No: 3& 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Understand and implement various Pest management practices including: <ul style="list-style-type: none"> ✓ Physical practices ✓ Cultural practices ✓ Chemical practices ✓ Biological practices 	<ul style="list-style-type: none"> • Task 21 <p><i>Details may be seen at Annexure-I</i></p>
Week 20	Nutrition Management	<ul style="list-style-type: none"> • Success stories (<i>For further detail please see Page No: 3 & 4</i>) 	<ul style="list-style-type: none"> • Task 22 <p><i>Details may</i></p>

		<p>Students are introduced to:</p> <ul style="list-style-type: none"> • Understand Nutrients and its types • Explain macro and micro nutrients • Understand and identify tools and equipment required for Nutrition management • Explain role of nutrients in citrus production • Identify nutrient deficiency symptoms in different citrus varieties • Understand fertigation scheduling • Understand nutritional requirement at different growth stages • Methods of nutrient application 	<p><u>be seen at Annexure-I</u></p>
<p>Week 21</p>	<p>Employable Project/ Assignment (6 weeks) i.e. 21-26 besides regular classes. OR On the job training (2 weeks)</p>	<ul style="list-style-type: none"> • Guidelines to the Trainees for selection of student employable project like final year project (FYP) • Assign Independent project to each Trainee • A project-based on trainee's aptitude and acquired skills. • Designed by keeping in view the emerging trends in the local market as well as across the globe. • The project idea may be based on Entrepreneur. • Leading to successful employment. • The duration of the project will be 6 weeks • Final viva/assessment will be conducted on project assignments. • At the end of the session, the project will be presented in a skills competition • The skill competition will be conducted on zonal, regional, and National levels. • The project will be presented in front of Industrialists for commercialization • The best business idea will be placed in the NAVTTC business incubation center for commercialization. <p style="text-align: center;">OR</p> <p>On the job training for 2 weeks:</p> <ul style="list-style-type: none"> • Aims to provide 2 weeks of industrial training to the Trainees as part of the overall training program • Ideal for the manufacturing trades • As an alternative to the projects that involve expensive equipment 	

		<ul style="list-style-type: none"> • Focuses on increasing Trainee’s motivation, productivity, efficiency, and quick learning approach. 	
Week 22	Disease Management-I	<p>Students are introduced to:</p> <ul style="list-style-type: none"> • Understand Integrated Disease Management (IDM) • Understand various diseases of different citrus cultivars • Identify disease symptoms • Understand various IDM practices • Understand and identify tools and equipment required for disease management • Perform disease management operations 	
	How to search and apply for jobs in at least two labor marketplace countries (KSA, UAE, etc.)	<ul style="list-style-type: none"> • Browse the following website and create an account on each website <ul style="list-style-type: none"> ✓ Bayt.com – The Middle East Leading Job Site ✓ Monster Gulf – The International Job Portal ✓ Gulf Talent – Jobs in Dubai and the Middle East • Find the handy ‘search’ option at the top of your homepage to search for the jobs that best suit your skills. • Select the job type from the first ‘Job Type’ drop-down menu, next, select the location from the second drop- down menu. • Enter any keywords you want to use to find suitable job vacancies. • On the results page you can search for part-time jobs only, full-time jobs only, employers only, or agencies only. Tick the boxes as appropriate to your search. • Search for jobs by: <ul style="list-style-type: none"> ✓ Company ✓ Category ✓ Location ✓ All jobs ✓ Agency ✓ Industry 	

Week 23	Disease Management-II	<ul style="list-style-type: none"> • Motivational Lecture (<i>For further detail please see Page No: 3& 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Identification of different diseases of Citrus • Identification of different physiological disorders • Perform various cultural operations to control physiological disorders of citrus cultivars • Prepare solutions of required chemical for disease management • Adhere to health and safety standards 	
Week 24	Fruit Harvesting Management-I	<ul style="list-style-type: none"> • Success stories (<i>For further detail please see Page No: 3 & 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Understand Physiological maturity of different cultivars • Understand fruit harvesting mechanism • Identify tools and equipment required for Fruit harvesting • Perform manual harvesting of citrus fruits • Understand various control measures to avoid fruit loss 	
Week 25	Fruit Harvesting Management-II	<ul style="list-style-type: none"> • Motivational Lecture (<i>For further detail please see Page No:3 & 4</i>) <p>Students are introduced to:</p> <ul style="list-style-type: none"> • Understand maturity indices of different cultivars • Operate different harvesting machinery • Perform Harvesting of different cultivars using various tools • Perform post-harvest care of machineries • Understand factors affecting fruit harvesting 	
Week 26	Entrepreneurship and Final Assessment in project	<ul style="list-style-type: none"> • Success stories (<i>For further detail please see Page No: 3& 4</i>) • Job Market Searching • Self-employment 	Final Assessment

		<ul style="list-style-type: none"> • Introduction • Fundamentals of Business Development • Entrepreneurship • Startup Funding • Business Incubation and Acceleration • Business Value Statement • Business Model Canvas • Sales and Marketing Strategies • How to Reach Customers and Engage • Stakeholders Power Grid • RACI Model, SWOT Analysis, PEST Analysis • SMART Objectives • OKRs • Cost Management (OPEX, CAPEX, ROCE, etc.) 	
Final Assessment			

Tasks For Certificate in Advanced Welding

Task No	Task	Description	Week
1	Find the career path	<ul style="list-style-type: none"> Prepare a career path related to your course and also highlight the emerging trends in the local as well as international market 	Week 1
2	Work Ethics	<ul style="list-style-type: none"> Generate a report on Institute work ethics and professionalism related to your course 	
3	Identify hazards in workshop	<ul style="list-style-type: none"> Prepare a report of at least 10 safety practices and welding workshop related hazards 	
4	Visit Top Ten Citrus growers & Report writing	<ul style="list-style-type: none"> Generate a list of top Citrus growers Make a Report on available citrus varieties 	Week-2
5	Perform Soil Testing	<ul style="list-style-type: none"> Take sample from field Observe and record five physical properties of soil Observe and record five chemical properties of soil 	Week 3
6	Calibrate equipment	<ul style="list-style-type: none"> Enlist 5 major Citrus producing tools and equipment. Learn equipment calibration. 	Week 4
7	Visit citrus orchard and record data of citrus plantation	<ul style="list-style-type: none"> Visit Citrus orchard Learn operating Tillage implements Perform ploughing 	Week 5
8	Implement Quincunx layout for citrus orchard	<ul style="list-style-type: none"> Prepare a Visit plan Prepare a Quincunx layout for citrus orchard 	Week 6
9	Implement low density layout for citrus orchard	<ul style="list-style-type: none"> Prepare a Visit plan Prepare a Quincunx layout for citrus orchard 	Week 7
10	Perform Seed Extraction	<ul style="list-style-type: none"> Selection of seed Perform seed extraction 	Week 8
11	Perform Tissue culturing	<ul style="list-style-type: none"> Selection of mother plant Media Preparation Propagate Ex plant in media Harden the plant 	Week 9

12	Perform transplantation	<ul style="list-style-type: none"> • Plant Selection • Perform acclimatization • Soil preparation • Perform transplanting 	Week 10
13	Perform Ultra high-density method of citrus training	<ul style="list-style-type: none"> • Observe orchard • Arrange training tools • Perform ultra-high-density method of training according to citrus requirement 	Week 11
14	Carry out Drip irrigation system	<ul style="list-style-type: none"> • Prepare a layout • Digging • Waterpipe installation • Installation of drippers 	Week 12
15	Schedule irrigation in citrus orchard	<ul style="list-style-type: none"> • Observe citrus orchard • Prepare irrigation plan 	Week 14
16	Perform pruning technique according to citrus demand	<ul style="list-style-type: none"> • Visit Orchard • Arrange tools for pruning • Perform pruning 	Week 15
17	Apply post pruning care practices	<ul style="list-style-type: none"> • Arrange tools • Perform topping and suckering 	Week 16
18	Apply weedicide in citrus orchard	<ul style="list-style-type: none"> • Select weedicide • Prepare stock solution • Apply weedicides manually 	Week 17
19	Collection of major and minor pest	<ul style="list-style-type: none"> • Observe Citrus pest • Collect major and minor pests from orchard • Maintain data sheet 	Week 18
20	Perform pest scouting through diagonal method	<ul style="list-style-type: none"> • Arrange scouting tools • Perform zig zag method • Measure ETL of major citrus pests 	
21	Apply chemicals for pest control in citrus orchard and record data	<ul style="list-style-type: none"> • Selection of chemical • Prepare stock solution • Apply chemical manually 	Week 19
22	Observe level of micro and macronutrients in citrus	<ul style="list-style-type: none"> • Visit orchard • Observe nutritional deficiency symptoms in fruits 	Week 20

Motivational Lectures

What is freelancing and how you can make money online - BBCURDU

<https://www.youtube.com/watch?v=9jCJN3Ff0kA>

What Is the Role of Good Manners in the Workplace? By Qasim Ali Shah | In Urdu

<https://www.youtube.com/watch?v=Qi6Xn7yKIIQ>

Hisham Sarwar Motivational Story | Pakistani Freelancer

https://www.youtube.com/watch?v=CHm_BH7xAXk

21 Yr Old Pakistani Fiverr Millionaire | 25-35 Lakhs a Month Income | Interview

<https://www.youtube.com/watch?v=9WrmYYhr7S0>

Success Story of a 23 Year - Old SEO Expert | How This Business Works | Urdu Hindi Punjabi

<https://www.youtube.com/watch?v=tIQ0CWgszI0>

Failure to Millionaire - How to Make Money Online | Fiverr Superhero Aaliyaan Success Story

<https://www.youtube.com/watch?v=d1hocXWSpus>

Success Story – Mian Amjad Iqbal from Bhalwal Sargodha _ Citrus producer

<https://www.youtube.com/watch?v=aWpG7aPxNeM>

Citrus High Density Farming in Pakistan - Profit 6 lakh/Acre

<https://www.youtube.com/watch?v=eWNXCCeYmEI>

SUGGESTIVE FORMAT AND SEQUENCE ORDER OF MOTIVATIONAL LECTURE.

Mentor

Mentors are provided an observation checklist form to evaluate and share their observational feedback on how students within each team engage and collaborate in a learning environment. The checklist is provided at two different points: Once towards the end of the course. The checklists are an opportunity for mentors to share their unique perspective on group dynamics based on various team activities, gameplay sessions, pitch preparation, and other sessions, giving insights on the nature of communication and teamwork taking place and how both learning outcomes and the student experience can be improved in the future.

Session- 1 (Communication):

Please find below an overview of the activities taking place Session plan that will support your delivery and an overview of this session's activity.

Session- 1 OVERVIEW
Aims and Objectives:
<ul style="list-style-type: none"> To introduce the communication skills and how it will work Get to know mentor and team - build rapport and develop a strong sense of a team Provide an introduction to communication skills Team to collaborate on an activity sheet developing their communication, teamwork, and problem-solving Gain an understanding of participants' own communication skills rating at the start of the program

Activity:	Participant Time	Teacher Time	Mentor Time
Intro Attend and contribute to the scheduled.			
Understand good communication skills and how it works.			
Understand what good communication skills mean			
Understand what skills are important for good communication skills			
Key learning outcomes:	Resources:		Enterprise skills developed:
<ul style="list-style-type: none"> Understand the communication skills and how it works. 	<ul style="list-style-type: none"> Podium Projector Computer 		<ul style="list-style-type: none"> Communication Self Confidence Teamwork

<ul style="list-style-type: none"> • Understand what communication skills mean • Understand what skills are important for communication skills 	<ul style="list-style-type: none"> • Flip Chart • Marker 	
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Schedule	Mentor Should do
Welcome: 5 min	Short welcome and ask the Mentor to introduce him/herself. Provide a brief welcome to the qualification for the class. Note for Instructor: Throughout this session, please monitor the session to ensure nothing inappropriate is being happened.
Icebreaker: 10 min	Start your session by delivering an icebreaker, this will enable you and your team to start to build rapport and create a team presentation for the tasks ahead. The icebreaker below should work well at introductions and encouraging communication, but feel free to use others if you think they are more appropriate. It is important to encourage young people to get to know each other and build strong team links during the first hour; this will help to increase their motivation and communication throughout the sessions.
Introduction & Onboarding: 20mins	Provide a brief introduction of the qualification to the class and play the “Onboarding Video or Presentation”. In your introduction cover the following: <ol style="list-style-type: none"> 1. Explanation of the program and structure. (Kamyab jawan Program) 2. How you will use your communication skills in your professional life. 3. Key contacts and key information – e.g. role of teacher, mentor, and SEED. Policies and procedures (user agreements and “contact us” section). Everyone to go to the Group Rules tab at the top of their screen, read out the rules, and ask everyone to verbally agree. Ensure that the consequences are clear for using the platform outside of hours. (9am-8pm) 4. What is up next for the next 2 weeks ahead so young people know what to expect (see pages 5-7 for an overview of the challenge). Allow young people to ask any questions about the session topic.
Team Activity Planning: 30 minutes	MENTOR: Explain to the whole team that you will now be planning how to collaborate for the first and second collaborative Team Activities that will take place outside of the session. There will not be another session until the next session so this step is required because communicating and making decisions outside of a session requires a different strategy that must be agreed upon so that everyone knows what they are doing for this activity and how. <ul style="list-style-type: none"> • “IDENTIFY ENTREPRENEURS” TEAM ACTIVITY • “BRAINSTORMING SOCIAL PROBLEMS” TEAM

	<p style="text-align: center;">ACTIVITY”</p> <p><i>As a team, collaborate on a creative brainstorm on social problems in your community. Vote on the areas you feel most passionate about as a team, then write down what change you would like to see happen.</i></p> <p>Make sure the teams have the opportunity to talk about how they want to work as a team through the activities e.g. when they want to complete the activities, how to communicate, the role of the project manager, etc. Make sure you allocate each young person a specific week that they are the project manager for the weekly activities and make a note of this.</p> <p>Type up notes for their strategy if this is helpful - it can be included underneath the Team Contract.</p>
<p>Session Close: 5 minutes</p>	<p>MENTOR: Close the session with the opportunity for anyone to ask any remaining questions.</p> <p>Instructor: Facilitate the wrap-up of the session. A quick reminder of what is coming up next and when the next session will be.</p>

SUCCESS STORY

S. No	Key Information	Detail/Description
1.	Self & Family background	<p>Mian Amjad Iqbal, who lives in Bhalwaal (Sargodha), is an example of how hard work and perseverance can reap rich rewards. The Citrus Grower works exclusively in Orchard and has earned, on average, 6 Lac/acre for the previous season. But this isn't a story of overnight success – Amjad has had to work hard to differentiate himself and stay true to his goal.</p> <p>It was a full year later, in May 2017, when Amjad finally decided to jump in. He signed up for one of the numerous companies that export high quality citrus . He had already started a small business to help pay for his college education, so he was nervous and apprehensive about the decision. “I gave myself two or three months at most. If I didn't succeed, then I would go back to running the business as it was showing potential,” he says.</p> <p>If at first, you don't succeed, try try again</p>
2.	How he came on board NAVTTC Training/ or got trained through any other source	Certification in Citrus Production from STEPS(NAVTTC partner institute)
3.	Post-training activities	<p>Amjad's area of expertise is in Agri Business. Firstly, he owned a land and cultivated Citrus through Ultra high-density layout. But it wasn't so simple. “I needed to understand what worked, so I went through some citrus literature, participated in forums, and trainings of successful Citrus growers. It was an uphill struggle, but I didn't want to give up,” he explains.</p> <p>After three years of struggle, he harvested his first yield which was high quality and super abundant. He preferred Online marketing to expand his business and develop a direct relationship with customers. In the beginning , he didn't hear back from even a single client, but with his continues struggle, he started interacting various clients.</p> <p>He also expanded the range of his professional services, branching out towards digital marketing i.e., banners, Facebook cover pages, brochures. Soon he became one of the top citrus producer of Sargodha</p>

		(Punjab).
4.	Message to others (under training)	Take the training opportunity seriously Impose self-discipline and ensure regularity Make Hard work pays in the end so be always ready for the same.

Note: Success story is a source of motivation for the trainees and can be presented in several ways/forms in a NAVTTC skill development course as under: -

1. To call a passed out successful trainee of the institute. He will narrate his success story to the trainees in his own words and meet trainees as well.
2. To see and listen to a recorded video/clip (5 to 7 minutes) showing a successful trainee Audio-video recording that has to cover the above-mentioned points.*
3. The teacher displays the picture of a successful trainee (name, trade, institute, organization, job, earning, etc.) and narrates his/her story in the teacher's own motivational words.

* *The online success stories of renowned professional can also be obtained from **Annex-II***

Workplace/Institute Ethics Guide

Work ethic is a standard of conduct and values for job performance. The modern definition of what constitutes good work ethics often varies. Different businesses have different expectations. Work ethic is a belief that hard work and diligence have a moral benefit and an inherent ability, virtue, or value to strengthen character and individual abilities. It is a set of values-centered on the importance of work and manifested by determination or desire to work hard.

The following ten work ethics are defined as essential for student success:

1. Attendance:

Be at work every day possible, plan your absences don't abuse leave time. Be punctual every day.

2. Character:

Honesty is the single most important factor having a direct bearing on the final success of an individual, corporation, or product. Complete assigned tasks correctly and promptly. Look to improve your skills.

3. Team Work:

The ability to get along with others including those you don't necessarily like. The ability to carry your weight and help others who are struggling. Recognize when to speak up with an idea and when to compromise by blend ideas together.

4. Appearance:

Dress for success set your best foot forward, personal hygiene, good manner, remember that the first impression of who you are can last a lifetime

5. Attitude:

Listen to suggestions and be positive, accept responsibility. If you make a mistake, admit it. Values workplace safety rules and precautions for personal and co-worker safety. Avoids unnecessary risks. Willing to learn new processes, systems, and procedures in light of changing responsibilities.

6. Productivity:

Do the work correctly, quality and timelines are prized. Get along with fellows, cooperation is the key to productivity. Help out whenever asked, do extra without being asked. Take pride in your work, do things the best you know-how. Eagerly focuses energy on accomplishing tasks, also referred to as demonstrating ownership. Takes pride in work.

7. Organizational Skills:

Make an effort to improve, learn ways to better yourself. Time management; utilize time and resources to get the most out of both. Take an appropriate approach to social interactions at work. Maintains focus on work responsibilities.

8. Communication:

Written communication, being able to correctly write reports and memos. Verbal communications, being able to communicate one on one or to a group.

9. Cooperation:

Follow institute rules and regulations, learn and follow expectations. Get along with fellows, cooperation is the key to productivity. Able to welcome and adapt to changing work situations and the application of new or different skills.

10. Respect:

Work hard, work to the best of your ability. Carry out orders, do what's asked the first time. Show respect, accept, and acknowledge an individual's talents and knowledge. Respects diversity in the workplace, including showing due respect for different perspectives, opinions, and suggestions.