

Hydroponics Lecture and Lab Schedule

Spring 2025

January

T	7	Introduction and 9 cardinal parameters
R	9	Units for 9 cardinal parameters
T	14	Hydroponic history and design
R	16	Substrate selection
T	21	Essential elements
R	23	Nutrient functions
T	28	EC and pH, Lab 1 introduction
R	30	Lab 1 – Solution preparation

February

T	4	Nitrogen
R	6	Iron and chelates
T	11	Methods for solution analysis
R	13	Lab 2 – Solution analysis
T	18	Mass balance for solution preparation
R	20	Transpiration and water-use efficiency
T	25	<i>Research greenhouse tour</i> and Lab 3 prep
R	27	Tissue and solution analysis

March

T	4	Nutrient deficiencies and toxicities
R	6	Root-zones, aeration, and gases
T	11	Spring Break – No class
R	13	Spring Break – No class
T	18	Lab 3 – Nutrient imbalance
R	20	Photosynthesis and lighting
T	25	Supplemental lighting
R	27	Lab 4 - Lighting

April

T	1	Humidity
R	3	Water quality
T	8	<i>Conference – No class</i>
R	10	Aquaponics
T	15	Greenhouse design and automated system control
R	17	Final presentations
T	22	Final presentations