Draft Syllabus
(Updated 1/4/2023)

Day 1 – Biochar Overview
● Welcome & Student introductions
● Syllabus review
● Intro to Biochar
● History & heritage of biochar
● Current biochar industry overview
● Carbon cycle & biochar
● Climate change & biochar: IPCC, mitigation, adaptation, NETs, CDR,

Day 2 – Biochar Production
● Biochar production: production parameters
● Biochar production technologies
● Co-products
● Feedstocks
● Material handling – transportation
● Demo of low-tech biochar production (weather dependent)

Day 3 – Sampling, Analysis, Standards, Certifications
● Biochar sampling
● Biochar analysis: where, interpretation, why
● Standards
● Specifications

Day 4 – Agricultural Uses
● Lessons learned & myth busting
● Cost/benefit
● Climate resilience
● Nutrient leaching impacts
● Water use efficiency
● Setting up trials
● Application techniques
● Case Studies
● Organics Management on farms

www.biochar-international.org
• Compost & other methods of charging
• Feed char

Day 5 – Field Trip – Cornell, Dairy Farm, etc.

Day 6 – Non-Ag Uses
• Building materials
• Urban tree planting
• Stormwater management
• Filtration
• Remediation
• Well capping
• Anaerobic digestion
• Batteries & beyond

Day 7 – Carbon Markets
• Overview of Biochar Carbon Market eco-system
• Puro
• CarbonFuture
• VERRA
• Artisanal C Sink
• Life Cycle Assessments

Day 8 – Economics of Biochar Production & Use
• Financing mechanisms and business models
• Circular Economy examples
  • Small holder
  • Large scale Crop Residues
  • Waste Management: sludge, manure, wood

Day 9 – Wrap-Up & Graduation
• Framing biochar: UN SDGs
• Adaptation
  o Forestry Management
  o Loss & Damage Projects

Day 10 – Field Trip (1/2 day) to Rochester Institute of Technology & mushroom farm