



THE UNIVERSITY OF ARIZONA
BIOSYSTEMS ENGINEERING

Controlled Environment
Agriculture Center

Online Aquaponics Intensive Workshop

with Dr. Matthew Recsetar

October 19th & 20th

9am-2pm MST AZ

October 19th- Day 1:

Waiting room and discussion available at 8:30am

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| 9:00- 9:15 am | Greetings and Course Overview |
| 9:15- 10:00 am | Introduction to Aquaponics and System Design |
| 10:00- 10:45 am | Filtration <ul style="list-style-type: none">▶ Types of filters▶ Designing and building filters▶ Purchasing filters |
| 10:45- 11:30 am | Tanks and Pumps <ul style="list-style-type: none">▶ Types, selection, and sizing |
| 11:30- 11:45 am | Questions |
| 11:45- 12:00 pm | Break |
| 12:00- 12:05 pm | Sponsorship Presentation: Enterprise Aquatics |
| 12:05- 12:45 pm | Making Your System Work for You <ul style="list-style-type: none">▶ Finding the right fittings, materials, growbeds▶ Other Components▶ Flood and drain, airlift |
| 12:45- 1:30 pm | System Planning <ul style="list-style-type: none">▶ What to grow? where to grow? water source?▶ Designing your system▶ Parts inventory▶ Cost breakdown/budget |
| 1:30- 2:00 pm | Questions |



October 20th- Day 2:

Waiting room and discussion available at 8:30am

- 9:00- 9:15 am Discussion and questions from previous day
- 9:15- 9:45 am Fish and Fish Care
- ▶ Fish transport and acclimation
 - ▶ Stocking and feeding
 - ▶ Care and maintenance
- 9:45- 10:15 am Growing Plants in Aquaponics
- ▶ Germination, seed trays, transplants
 - ▶ Plant care and maintenance
- 10:15- 10:30 am Questions
- 10:30- 10:40 am Break
- 10:40- 11:25 am Water Quality and Nutrients (Discussion and Demo)
- ▶ Water quality parameters and limits
 - ▶ Nutrient supplementation
 - ▶ Measuring and maintaining water quality
- 11:25- 11:55 am System Management
- ▶ Daily tasks
 - ▶ Maintenance
 - ▶ Harvesting fish and plants
- 11:55- 12:10 pm Questions
- 12:10- 12:20 pm Break
- 12:20- 12:50 pm Integrative Pest Management
- ▶ Prevention, monitoring
 - ▶ Treatments: organic vs conventional, biological
- 12:50- 1:30 pm Troubleshooting, Tips and Tricks
- ▶ Leaks and repairs
 - ▶ Shade, algal and bacterial build up, suspended soils, foam
- 1:30- 2:00 pm Questions and Evaluation Form