

# Aquaculture / Aquaponics 101 Teacher Workshop

July 11-15, 2022 – Auburn, Alabama



**A**quaponics is being utilized in classrooms across the country to excite and engage students and teachers. Aquaponics is the art/science of growing fish and plants in a symbiotic relationship in a single system. It is a combination of aquaculture and hydroponics. The fish are fed a high quality prepared diet and their waste is used as fertilizer to grow plants. The plants in turn act as a filter to clean the water that can be returned to the fish tank. There is tremendous interest in Aquaponics and aquaculture as a platform to teach real world applications of biology, chemistry, math and science. Working with an aquaponics system also requires technical skills in plumbing, carpentry and sometimes masonry. It is an excellent tool to examine the different elements of business management and marketing.

**T**he trouble is that most teachers don't have any training in aquaponics. The **Aquaculture/Aquaponics 101 Workshop** provides hands-on training and expert advice on how to start and operate an aquaponics system and provides resource materials to help integrate the knowledge into existing curriculum. Teachers will design and build a complete aquaponics system that they can take back to their school. Faculty from Auburn University, the Alabama Cooperative Extension System and the Alabama, Mississippi Sea Grant Consortium provides expert instruction.

The workshop will be held at the E.W. Shell Fisheries Center, 2101 N. Collage St. July 11-15, 2022, in Auburn, Alabama. The cost for the workshop is \$295 and 32 hours of continuing education credit is available.



The AU Fisheries and Aquaculture program world renowned for its teaching, research and Extension efforts. The facility is the largest of its kind in the world with over 1800 acres, 350 ponds, and nearly 2,000 aquaria.

For more information contact David Cline 334-844-2874 or PJ Waters 251-438-5690

[Photos from the 2019 Aquaponics 101](#) [Teacher reactions to the workshop](#)

## Aquaponics 101 Teacher Training Workshop



**When:** July 11-15, 2022, 8:00am to 4:30 pm daily (M-TH) 8-12 on Friday

**Where:** (Physical) Auburn University  
E.W. Shell Fisheries Center  
2101 North College St.  
Auburn, AL 36830

(Mailing) 203 Swingle Hall  
Auburn University, AL 36849

**Cost:** \$295 to attend the workshop  
This includes resources that previous teachers felt were worth \$400+  
(Travel and living expenses not included)

**CEUs:** **32 hours of continuing education credits**

**Capacity:** Due to the **hands-on** nature of the workshop, seating is **limited to 30 participants**  
Please [Register Online](#)  
Or Call David Cline 334-844-2874 or Valerie Klein 334-844-4667

**Information:** David Cline (AU) 334-844-2874 - [clinedj@auburn.edu](mailto:clinedj@auburn.edu)  
P.J. Waters (AU-Sea Grant) 251-438-5690 - [Waterph@auburn.edu](mailto:Waterph@auburn.edu)  
Stan Arington (AU Fisheries Learning Center) 334-844-4630 [sca0028@auburn.edu](mailto:sca0028@auburn.edu)

<b>Topics Addressed Include</b>		
<b>Biology</b>	<b>Chemistry</b>	<b>Math</b>
Aquaponics – Integrating plant and fish culture	Nitrogen cycle – ammonia, nitrite, nitrate	Nutrient input vs. grow bed capacity
Catfish and tilapia morphology	Dissolved oxygen	Volumetric displacement
Fish culture techniques	Alkalinity	Feeding rates
Pond dynamics	PH	Feed conversion and growth rate
Diseases of warm water fish	Hardness	Tank and system volumes
Fish hatchery operations	Temperature effects	Surface area of biofilter material
Components and functions of a recirculating aquaculture system	Water quality relationships	How to correctly size a biofilter
Fish genetics (super male tilapia)	<b>And Many Other Topics</b>	Average weights

Aquaponics 101 - Registration Form  
Teacher Workshop July 11-15, 2022  
Seating limited to first 30 people

Register Online at: [HERE](#)

or

Mail this form with your \$295 check to : David Cline  
Payable to Auburn University 203 Swingle Hall  
AND email a copy to [clinedj@auburn.edu](mailto:clinedj@auburn.edu) Auburn University, AL 36849

Name: \_\_\_\_\_

Home Address: \_\_\_\_\_

Home phone: \_\_\_\_\_

School: \_\_\_\_\_

School address: \_\_\_\_\_

School phone: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Grades taught: \_\_\_\_\_

Courses taught: \_\_\_\_\_

Briefly describe the current aquaculture facilities available at your school. \_\_\_\_\_

If you have questions contact

Registration – David Cline 334-844-2874 or Valerie Klein 334-844-4667

Technical Info: David Cline, 334-844-2874 (AU, ACES) - [clinedj@auburn.edu](mailto:clinedj@auburn.edu)  
PJ Waters, 251-438-5690 (Sea Grant, ACES, AU) [Waterph@auburn.edu](mailto:Waterph@auburn.edu)  
Stan Arington (Fisheries Learning Center) 334-844-4630 [sca0028@auburn.edu](mailto:sca0028@auburn.edu)

Workshop sponsored by Alabama Cooperative Extension System, Auburn University School of Fisheries, Aquaculture and Aquatic Sciences, Auburn Marine Extension and Research Center and the Mississippi-Alabama Sea Grant Consortium.