Aquaculture / Aquaponics 101 Teacher Workshop

Video about the workshop

June 9-13, 2014 – Auburn, Alabama

Teacher reactions to the workshop



Aquaponics 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.

I 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. Expert instruction is provided by faculty from Auburn University, the Alabama Cooperative Extension System, Gadsden State Community College and the Alabama, Mississippi Sea Grant Consortium.

The workshop will be held at the E.W. Shell Fisheries Center, June 9-13th, 2014 in Auburn, Alabama. The cost for the workshop is \$265 and 32 hours of continuing education credit is available. For more information visit: www.alearn.info



 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, Hugh Hammer 256-549-8345 or PJ Waters 251-438-5690

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Aquaponics 101 Teacher Training Workshop



When:	June 9-13th, 2014. 9:00am to 5:00 pm daily	
Where:	Auburn University 2	Vailing) 03 Swingle Hall uburn University, AL 36849
Cost:	\$265 to attend the workshop This includes resources that previous teachers felt were worth \$400+ (Travel and living expenses not included)	
CEUs:	3.2 continuing education credits for 32 hours of contact time	
Capacity:	Due to the hands-on nature of the workshop seating is limited to 30 participants Please <u>Register Online Here</u> Or Call John Freeze 334-844-5100	

Information: David Cline (AU) 334-844-2874 - <u>clinedj@auburn.edu</u> Hugh Hammer (GSCC) at 256-549-8345 - <u>hhammer@gadsdenstate.edu</u> P.J. Waters (AU-Sea Grant) 251-438-5690 - <u>Waterph@auburn.edu</u>

Topics Addressed Include			
Biology	Chemistry	Math	
Aquaponics – Integrating plant	Nitrogen cycle – ammonia,	Nutrient input vs. grow bed	
and fish culture	nitrite, nitrate	capacity	
Catfish and tilapia morphology	Dissolved oxygen	Volumetric displacement	
Fish culture techniques	Alkalinity	Feeding rates	
Pond dynamics	РН	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	Water quality relationships	How to correctly size a biofilter	
recirculating aquaculture system			
Fish genetics (super male tilapia)	And Many Other Topics	Average weights	

Aquaponics 101 - Pre- Registration Form Teacher Workshop June 9-13, 2014 Seating limited to first 30 people Register early to guarantee your seat

Register Online at: <u>https://mell-base.uce</u>	.auburn.edu/CourseStatus.awp?&course=C140609
or Mail this form with your payment to: Payable to Auburn University If paying with purchase order PO Number	Aquaculture /Aquaponics workshop Registration c/o Office of Professional and Continuing Education 301 O.D. Smith Hall 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 fac	cilities available at your school
If you have questions contact	
0	0, (AU Outreach) <u>jmf0013@auburn.edu</u>
Technical Info: David Cline, 334-844-2874	4 (AU, ACES) - <u>clinedj@auburn.edu</u> 45 (GSCC) - <u>hhammer@gadsdenstate.edu</u>
0	43 (GSCC) - <u>nnammer@gadsdenstate.edu</u> Sea Grant, ACES, AU) Waterph@auburn.edu

Workshop sponsored by Alabama Cooperative Extension System, Gadsden State Community College, Auburn University, Auburn Marine Extension and Research Center, Mississippi-Alabama Sea Grant Consortium