

Aquaculture Program at Santa Monica College (SMC)

Minutes – Industry Advisory Board Meeting
Wednesday, July 24, 2024, 1:00PM - 2:16PM

I. **Call to Order** – 1:00pm

The Aquaculture Program Industry Advisory Board (IAB) meeting was held via Zoom. Karol Lu, Ed.D., Project Manager, called the meeting to order at 1:00pm on Wednesday, July 24, 2024.

II. **Welcome & Introductions** – 1:01pm

Ferris Kawar, Director of Sustainability from Santa Monica College (SMC) welcomed *nine members* from industry and *six program faculty and staff* from SMC in attendance. All advisory committee members as well as faculty and staff members from SMC introduced themselves:

In attendance – Name, Title, and Association

Garen Baghdasarian, Ph.D., Chair, Life Sciences Department, Santa Monica College

Ferris Kawar, Director, Sustainability Center, Santa Monica College

Karol Lu, Ed.D., Project Manager, Santa Monica College

Laura Rink, Adjunct Faculty, Santa Monica College

Emily Aguirre, Adjunct Faculty, Santa Monica College

Stuart Ryan, Adjunct Faculty, Santa Monica College

Janet Kübler, Ph.D., Lecturer, California State University, Northridge

David Telling, Founding Partner, Pacific6

Donald Kent, M.S., President, Hubbs Seaworld Research Institute

Peter Struffenegger, Manager, Sterling Caviar

Marslaidh Ryan, Director, Heal the Bay

Randy Lovell, State Aquaculture Coordinator, CA Dept. Of Fish and Wildlife

Linda Chilton, Educator

Devin Spencer, MBA, General Manager, Cultured Abalone Farm

Meredith Brooks, Senior Program and Grants Manager, AltaSea

III. **Approval of Minutes** – 1:08pm

The Aquaculture Program IAB meeting minutes from April 27, 2023, were reviewed. Marslaidh Ryan moved to approve the minutes as written; Meredith Brooks seconded the motion. Meeting minutes were approved by unanimous consent.

IV. **Program Updates and Report** – 1:09pm

a. **Funding**

Ferris Kawar provided the committee members with a program update on current program funding, including subaward NOAA – Padilla grant, Builder’s Initiative private grant, and recently approved Perkins grant for 2024-25 year. With NOAA – Padilla expiring in August 2024, Ferris Kawar mentioned that the program will be looking for additional funding opportunities to support the growth of the program.

b. **Aquaculture Internships**

Laura Rink provided the committee members with a program update on the first cohort of 6 interns at Heal the Bay during Summer 2024 intersession. Laura Rink emphasized the importance of internship experiences for students in the program to provide a pathway to gain work experience and a pipeline to the workforce.

c. **Certificates of Achievement (CoAs)**

Dr. Garen Baghdasarian provided an update on the approval of the two Aquaculture CoAs – Level 1 and Level 2; both certificates have been approved by the curriculum committee at SMC and pending approval at the California Community College Chancellor’s Office (CCCCO):

CoA – Level I (15-17 units)

AQUA 1 - Introduction to Aquaculture: History, Ecology and Sustainability (3 units)

AQUA 2 - Applications in Aquaculture - System Design, Monitoring and Maintenance (4 units)

BIOL 15 – Marine Biology w/ Lab (4 units) OR one course from each group:

Group 1 (3 units): BUS 55, BIOL 9, BIOL 10, ENGR 11

Group 2 (3 units): BIOL 15N, GEOL 31

AQUA 10A – Scuba (2 units)
AQUA 88B – Independent Studies (2 units)

CoA – Level II (8 units)

AQUA 3 - Microbiology and Genetics for Aquaculture (4 units)

AQUA 4 - Husbandry and Life Support in Aquaculture and Aquarium Science (2 units)

AQUA 5 - Advanced Topics in Aquaculture (2 units)

V. **New Business – 1:17pm**

a. **Program Modification**

Dr. Garen Baghdasarian discussed the need for a program modification to the existing Certificate of Achievement – Level I with the addition of elective options – 1) HEALTH 11 or equivalent first aid training, and 2) AQUA 90A, 90B, 90C; if the addition of the courses to the program are approved, the CoA – Level I total will be 14-19 units. The following information was presented to the advisory board members:

Addition of elective courses to the CoA – Level I (15-17 units >> 14-19 units) - program modifications in red text:

AQUA 1 - Introduction to Aquaculture: History, Ecology and Sustainability (3 units)

AQUA 2 - Applications in Aquaculture - System Design, Monitoring and Maintenance (4 units)

BIOL 15 – Marine Biology w/ Lab (4 units) OR one course from each group:

Group 1 (3 units): BUS 55, BIOL 9, BIOL 10, ENGR 11

Group 2 (3 units): BIOL 15N, GEOL 31

Select one course from each elective group:

Elective 1 (2-3 units): AQUA 10A – Scuba (2 units), **HEALTH 11 - First Aid and Cardio-Pulmonary Resuscitation (3 units) OR equivalent first aid training**

Elective 2 (1-3 units): AQUA 88B – Independent Studies (2 units), **AQUA 90A (1 unit) - Internship, AQUA 90B (2 units) - Internship, AQUA 90C (3 units) - Internship**

The addition of HEALTH 11 as an elective option to the AQUA 10A – Scuba course allows students the option to continue to receive first aid training even if they are unable to commit to the scuba course for personal/medical reasons and/or does not meet the current basic swim prerequisite for AQUA 10A. Since first aid and safety is incorporated into the AQUA 10A course, a student who is unable to complete AQUA 10A would lose the skills taught in that course if a stand-alone first aid course is not offered as an alternative to AQUA 10A.

The addition of the internship course series, AQUA 90A, 90B, and 90C, as an elective option to the AQUA 88B – Independent Study course allows students two different pathways of interest. The current AQUA 88B is an independent study course suitable for students interested in aquaculture research as a future career. The AQUA 90A, 90B, and 90C courses are internship courses that allow students to work at an internship site to gain practical, hands-on work experience; examples cited as an internship is working on an aquaculture farm.

b. **Update CoA – Level I and CoA – Level II Titles**

Dr. Garen Baghdasarian spoke about the need to update the titles to the existing certificates – CoA – Level I and CoA – Level II to reflect the training within each certificate. He presented several options for certificates' titles: Aquaculture Technician, Aquaculture Techniques & Systems, Applied Aquaculture Practices, Sustainable Aquaculture Systems.

c. **Open Discussion – Industry Advisory Board Members - 1:24pm**

i. **Funding**

Ms. Marslaidh Ryan asked clarifying questions regarding types of funding that support the program and Dr. Karol Lu and Ferris Kawar mentioned that the program receives funding support from both the District and grants.

ii. **Internships**

Mr. Peter Struffenegger suggests increasing the number of internship sites so that students gain more experience across the industry; Mr. Donald Kent asks whether aquaculture internships for students at SMC will extend outside of LA county. Ms. Laura Rink and Dr. Garen Baghdasarian clarified that limiting students to one internship site this year was not ideal, and the program will be expanded to other sites next year. Ms. Linda Chilton advised about the internship opportunities nationally.

iii. **Update CoA – Level I and CoA – Level II Titles**

Both Laura Rink and Randy Lovell agreed with Ferris Kavar’s suggestion to use the word “advance” to CoA – Level II title, “Advanced Aquaculture Technician,” that follows the title “Aquaculture Technician” for the CoA – Level I. Ms. Emily Aguirre and Ms. Marslaidh Ryan suggest the use of the word “technology” in the certificate titles. Considerations for titles suggested by the IAB members include:

CoA – Level I

Aquaculture Technician
Technology
Aquaculture Technician I
Marine Technology

CoA – Level II

Advanced Aquaculture Technician Aquaculture
Advanced Aquaculture Technology
Aquaculture Technician II

VI. **Action Items** – 1:56pm

a. **Program Modification – Addition of HEALTH 11 or equivalent first aid training**

Mr. Donald Kent made a motion to recommend a *modification to the Certificate of Achievement – Level I* with the addition of HEALTH 11 - First Aid and Cardio-Pulmonary Resuscitation (3 units) OR equivalent first aid training. This motion was seconded by Ms. Meredith Brooks. There were no objections. **The motion passed by unanimous consent.** Vote count: (9) In Favor, (0) Opposed, (0) Abstained

b. **Open Discussion** – 1:57pm

Mr. Randy Lovell requests additional course information for AQUA 88B – Independent Study and for the internship course, AQUA 90A, 90B, and 90C so that IAB can make a more informed decision. Additional information could include the difference between the independent study versus an internship course. Dr. Karol Lu explained that students who were enrolled in the internship course could earn course credit while working at an internship site, however, additional information can be provided to the IAB to review and that the program modification to add the internship course can be done via electronic polling.

c. Mr. Donald Kent made a motion to table the addition of AQUA 90A, 90B, and 90C as a program modification to CoA – Level I, updates to the current titles of the CoAs, and the addition of the associate degree until additional information has been reviewed by the IAB. This motion was seconded by Ms. Linda Chilton. There were no objections. **The motion passed by unanimous consent.**

VII. **Committee Recommendations**

a. Recommends a program modification to add an elective course so that students can select between AQUA 10A – Scuba or the new addition:

- HEALTH 11 - First Aid and Cardio-Pulmonary Resuscitation (3 units) OR equivalent first aid training

b. Additional course catalog description for AQUA 88B – Independent Study and AQUA 90A, 90B, and 90C will be provided to the IAB. An addendum to the meeting minutes will be added at a later date to include the committee's recommendation re: addition of AQUA 90A, 90B, 90C as an elective course, the modification to the titles of the CoA - Level I & II, and the addition of the associate degree. Committee members will cast their votes via electronic polling.

VIII. **Adjournment** – 2:16pm

Minutes recorded and submitted by Karol Lu, Ed.D., Project Manager, pending approval.

Addendum

Aquaculture Program Industry Advisory Meeting Minutes
Date of Original Meeting: Wednesday, July 24, 2024, 1:00PM - 2:16PM

Date of Addendum: September 5, 2024

Purpose of the Addendum: This addendum serves to update the minutes of the Aquaculture Program advisory board meeting held on Wednesday, July 24, 2024, to include the rationale for program modification and the committee's recommendation by way of electronic polling.

Section V – New Business - updates

- As requested during the advisory meeting on July 24, 2024, in Section VI, item B and C, additional information was sent to the committee members for review. The document titled, "Proposal for Program Modifications and the addition of A.S. Degree" was sent via email on August 13, 2024, along with a link for committee members to cast their votes via electronic polling. E-polling was available to committee members between August 13-30, 2024.
- **New item - Section V, item D.** The addition of an associate degree (A.S. in Sustainable Aquaculture Technology) was proposed to the committee members.
 - **Course Requirements.** The course requirements for the proposed associate degree will include the following:
 - Major Requirements (22-27 units)
 - AQUA 1 - Introduction to Aquaculture: History, Ecology and Sustainability (3 units)
 - AQUA 2 - Applications in Aquaculture - System Design, Monitoring and Maintenance (4 units)
 - Elective 1 (4-6 units)
 - BIOL 15 – Marine Biology w/ Lab (4 units) OR one course from each group:
 - Group 1 (3 units): BUS 55, BIOL 9, BIOL 10, ENGR 11
 - Group 2 (3 units): BIOL 15N, GEOL 31 AQUA 10A – Scuba (2 units)
 - Elective 2 (2-3 units)
 - AQUA 10A – Scuba (2 units) or
 - HEALTH 11 - First Aid and Cardio-Pulmonary Resuscitation (3 units) OR equivalent first aid training
 - Elective 3 (1-3 units)
 - AQUA 88B – Independent Studies (2 units) or
 - AQUA 90A (1 unit) or AQUA 90B (2 units) or
 - AQUA 90C (3 units)
 - AQUA 3 - Microbiology and Genetics for Aquaculture (4 units)
 - AQUA 4 - Husbandry and Life Support in Aquaculture and Aquarium Science (2 units)
 - AQUA 5 - Advanced Topics in Aquaculture (2 units)
 - General Education requirements (33-38 units)

Section VI – Action Items – updates

- **Item D (new). Program Modification – Addition of AQUA 90A, 90B, 90C.** Committee members voted *in favor of the addition of AQUA 90A, 90C, 90C* as an elective option to AQUA 88B – Independent Study to the Certificate of Achievement (CoA) – Level I. Vote count: (10) In Favor, (1) Oppose, (0) Abstained
- **Item E (new). Program Modification – CoA – Level I title.** Committee members voted *in favor of modifying the title* of CoA – Level I to Certificate of Achievement – Aquaculture Technician I by unanimous consent. (11) In Favor, (0) Oppose, (0) Abstained

- **Item F (new). Program Modification – CoA – Level II title.** Committee members voted *in favor of modifying the title* CoA – Level II to Certificate of Achievement – Aquaculture Technician II by unanimous consent. Vote count: (11) In Favor, (1) Oppose, (0) Abstained
- **Item G (new). Addition of A.S. Degree.** Committee members voted *in favor of the addition of an associate degree* (A.S. in Sustainable Aquaculture Technology). Vote count: (10) In Favor, (1) Oppose, (0) Abstained.

Section VII – Committee Recommendations – updates

- **Item C (new).** Recommends a program modification to add an elective course so that students can select between AQUA 88B (2 units) – Independent Study or one of the following courses:
 - AQUA 90A (1 unit) – Internship or
 - AQUA 90B (2 units) – Internship or
 - AQUA 90C (3 units) – Internship
- **Item D (new).** Recommends a program modification to update the title to Certificate of Achievement – Level I to Certificate of Achievement – Aquaculture Technician I
- **Item E (new).** Recommends a program modification to update the title to Certificate of Achievement – Level II to Certificate of Achievement – Aquaculture Technician II
- **Item F (new).** Recommends the addition of an associate degree (A.S. in Sustainable Aquaculture Technology).