



WAVMA Aquatic Veterinarian Certification Program

CertAqV Knowledge, Skills & Experience/Education (KSE) Record

Applicant	<u>Dr. Marcus Wellfish</u>	Date submitted	<u>29 Sept 2013</u>
Mentor	<u>Dr. Pisces, DVM, CertAqV</u>	Date approved	<u>10 Oct 2013</u> Comments <u>KSE meets program requirements</u>
Adjudicator 1	_____	Date approved	_____ Comments _____
Adjudicator 2	_____	Date approved	_____ Comments _____

Instructions

The Certified Aquatic Veterinarian applicant should document the date and the source of knowledge, skills and experience/education for each KSE Module. KSEs must be at least at the level of what is expected in a veterinary curriculum that leads to a recognized veterinary degree, and should cover information unique to aquatic mammals, reptiles, amphibians, finfish, crustaceans, or molluscs. Credits are roughly equivalent hours spent obtaining a specific KSE (i.e. 1 credit = 1 hour of study or activity). The mentor or adjudicators may require a full description and documented proof of any KSE claimed. Please provide a biography, résumé or curriculum vitae along with this application.

The following categories are acceptable sources of KSEs (these may be KSEs that are taken or developed/taught by the applicant)

- A. Continuing Education and Professional Development (CEPD) classes/lectures..... 1 hour = 1 credit
- B. Academic Programs or Courses (University Level) 2 class hours = 1 credit (e.g., 40 hour week = 20 credits)
- C. Post-Veterinary Academic Training (Degrees, Internships, Residencies, Certification) Intern/Residency=50; MS=75; PhD/Board=100 credits
- D. Journal / Literature Self-Study and Online Education Article/webcast=1; Book=1/chapter up to 10 credits/book
- E. Clinical Experience & Case Logs Case Report = 5 credits per case
- F. Publications & Presentations in Professional Meetings Published article=5; Peer-reviewed article=10 credits;
Book Chapter=10; Complete Book=40; Lecture hour=5

Required Core Knowledge, Skills & Experience (KSE) Subject Area Modules (150 total credits required)

KSE Module 1: Aquatic Environment and Life Support Systems	2
KSE Module 2: Taxonomy, Anatomy and Physiology	2
KSE Module 3: Husbandry & Industries.....	2
KSE Module 4: Pathobiology & Epidemiology of Aquatic Animal Diseases.....	3
KSE Module 5: Diagnostics and Treatment of Aquatic Animal Diseases.....	3
KSE Module 6: Clinical Veterinary Experience and Client Communications.....	3
KSE Module 7: Public Health, Zoonotics and Seafood Safety.....	4
KSE Module 8: Legislation, Regulations, and Policies.....	4
KSE Module 9: Principles of Aquatic Animal Welfare	4

PRE-CLINICAL SUBJECTS

Add rows to table as necessary

KSE Module 1: Aquatic Environment and Life Support Systems List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Diseases of Fish Associated with Water Quality - N Saint-Erne - AVMA Convention, San Diego, CA. Aug 2012	A	1	
Airlift Pumps in Recirculating Systems – Ron Malone - Aquaculture America, Las Vegas, NV. Feb 2012	A	1	
Freshwater and Marine Life Support Systems – N Saint-Erne, AVMA Convention, Chicago, IL. Jul 2013	A	1	
The Aquatic Environment – RJ Roberts – in <i>Fish Pathology</i> , Bailliere Tindall, 1989.	D	1	
Water Quality in Warmwater Fish Ponds. CE Boyd, Ag Exp Station, Auburn AL. 1979.	D	10	
Visiting lecturer for class years 2 and 3 - BSc Aquaculture, Flinders University, presented 8 hours of lectures. 2003	F	40	
Credits Claimed for Module 1 [minimum 25 credits required]		54	

Add rows to table as necessary

KSE Module 2: Taxonomy, Anatomy and Physiology List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Histology & Necropsy Techniques: G. Sanders. AVMA Convention ,San Diego, CA. Aug 2012	A	1	
Gills: the Powerhouse of fish - Rob Jones - WAVMA Webinar, Jan 2013	D	1	
The Anatomy and Physiology of Teleosts – RJ Roberts – in <i>Fish Pathology</i> , Bailliere Tindall, 1989.	D	1	
Atlas of Trout Histology. Anderson & Mitchum, Wyoming Game & Fish Dept. 1974	D	9	
Fishes of the World, 4 th Ed. JS Nelson, Wiley & Sons, NJ. 2006	D	10	
Credits Claimed for Module 2 [10 minimum credits required]		22	

Add rows to table as necessary

KSE Module 3: Husbandry & Industries List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Developing Efficient & Effective Biosecurity Programs for Ornamental and Commercial Aquaculture Clients - Scarfe AD*, Walster CI, Palić D. - WAVMA Conference, Athens, Greece. Jul 2010	A	1	
The Ornamental Fish Industry - N Saint-Erne - Aquaculture America, Las Vegas, NV. Mar 2012	A	1	
Worked directly in aquaculture industry for 13 years (2000-2013)	E	26	
Credits Claimed for Module 3 [25 minimum credits required]		28	

CLINICAL SUBJECTS

Add rows to table as necessary

KSE Module 4: Pathobiology & Epidemiology of Aquatic Animal Diseases List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Emerging and Resurging Infections of Fish in the Great Lakes: Potential Threat to Conservation Efforts - Faisal M*, Loch TP - WAVMA Conference, Athens, Greece. July, 2010	A	1	
The Pathophysiology and Systemic Pathology of Teleosts – RJ Roberts – <i>Fish Pathology</i> , Bailliere Tindall, 1989.	D	1	
Hikkui Disease in Koi - N Saint-Erne - Aquatic Vet News 5(2) p16. Sept 2011	D	1	
Approaches to Emerging Diseases of Aquatic Animals - EM Bernoth - Aquatic Vet News 2(3) 2008; p13-22	D	1	
Aquariology: Fish Anatomy, Physiology, and Nutrition. JB Gratzek. Tetra Press, NJ. 1992	D	4	
Walster, CI, D. Palić & AD Scarfe (2011). <i>Veterinary Aquaculture Biosecurity Concepts Manual (Version 1)</i> – International Aquatic Veterinary Consortium, Ames, IA, USA. 309 pp.	D	10	
Health Maintenance and Principal Microbial Diseases of Cultured Fishes. JA Plumb, Iowa State Univ. 1999	D	10	
Credits Claimed for Module 4 [25 minimum credits required]		28	

Add rows to table as necessary

KSE Module 5: Diagnostics and Treatment of Aquatic Animal Diseases List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Fish Medicine Wet Lab - NAVC, Orlando FL. Jan 1999	A	6	
Ova Retention in Female Koi - N Saint-Erne - WAVMA Convention, Athens, Greece, Jul 2010	A	1	
Fish Vets in the Lab - George Sanders - AVMA Convention, San Diego CA. Aug 2012	A	1	
Therapeutic Options for Fish - N Saint-Erne - AVMA Convention, San Diego, CA. Jul 2012	A	1	
A Review of Non-Traditional Medicine in Aquatic patients - J Questen - AVMA Convention, San Diego, CA. 2012	A	1	
Fish Diagnostic Techniques Lab – AVMA Convention, Chicago, IL. Jul 2013	A	6	
Manual of Diagnostic Tests for Aquatic Animals 2012 - OIE - http://www.oie.int/international-standard-setting/aquatic-manual/access-online/	D	10	
Credits Claimed for Module 5 [25 minimum credits required]		27	

Add rows to table as necessary

KSE Module 6: Clinical Veterinary Experience and Client Communications List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Toxicology of Aquarium Fish - Helen Roberts, DVM, Brian S. Palmeiro, VMD. VetClinExotAnim 11 (2008) 359–374	D	1	
Surgery in Pet Fish - Werkman P* - WAVMA Conference, Athens, Greece. Jul 2010	A	1	
Sedation and Anesthesia - Helen Roberts- AVMA Convention, San Diego, CA. Aug, 2012	A	1	
Investigating Fish Kills in Private Practice - Helen Roberts - AVMA Convention, San Diego, CA. Aug, 2012	A	1	
Public Aquarium Practice: Practicing in a Fish Bowl - Scott Weber - AVMA Convention, San Diego CA. Aug 2012	A	1	
Case Reports – 5 clinical cases from private practice (see provided medical records)	E	25	
Credits Claimed for Module 6 [25 minimum credits required]		30	

Add rows to table as necessary

KSE Module 7: Public Health, Zoonotics and Seafood Safety List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Is KHV Zoonotic? Assessing the Zoonotic Potential of Aquatic Animal Diseases - Walster CI* - WAVMA Conference, Athens, Greece. Jul 2010	A	1	
Managing Mycobacteriosis - Scott Weber - AVMA Convention, San Diego, CA. Aug 2012	A	1	
Aquatic zoonoses associated with food, bait, ornamental, and tropical fish - Toby Lowry, DVM and Stephen A. Smith, DVM, PhD - JAVMA, Vol 231, No. 6, September 15, 2007	D	1	
Domestic Pet Turtle Market Access Act of 2007 – AVMA Position Paper Co-Author: AqVMC 2008	F	5	
Credits Claimed for Module 7 [5 minimum credits required]		8	

Add rows to table as necessary

KSE Module 8: Legislation, Regulations, and Policies List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Aquatic Animal Health Code - OIE - http://www.oie.int/international-standard-setting/aquatic-code/access-online/	D	1	
Worked directly in regulation of aquaculture industry for 10 years	E	10	
AVMA Guidelines for the Euthanasia of Animals: 2013 – Aquatics Chapter – co-author	F	5	
Credits Claimed for Module 8 [5 minimum credits required]		16	

Add rows to table as necessary

KSE Module 9: Principles of Aquatic Animal Welfare List name of CEPD/Class/Article Source, Location and Date	KSE Source Category (A,B,C,D,E,F)	Credits (hrs)	
		Applicant Claimed	Mentor Approved
Information Resources on Fish Welfare - USDA-ARS - 2003	D	5	
Fish Welfare Webinar, R Loh. (http://thefishvet.com/2012/10/22/free-lecture-on-fish-welfare/)	D	1	
Johnston C and Jungalwalla P (2004) "Guidelines on welfare of fish and crustaceans in aquaculture and/or live holding systems for human consumption", National Aquaculture Council, Canberra	D	1	
Credits Claimed for Module 9 [5 minimum credits required]		7	

Total KSE Credits Claimed for Certification [minimum 150]:		220	
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