2014 Schedule for AQUAVET® I

Locations;

Marine and Natural Sciences Building = MNS
Lecture rooms: MNS 200, MNS 210, MNS 213
Lab: MNS 103, MNS 106

Sunday, 25. May 2014

12:00–13:30 Registration – Check-In
Bayside Apartments

14:00 Orientation
MNS 200 Directors

15:00 RWU Required Safety Lecture
MNS 200 Caitlin Conley

16:00 Ecology, Natural History, Physiology, Anatomy of Marine Invertebrates
MNS 210 Dr. Robert Maze – Marinetics, Inc.

18:30 Ecology, Natural History, Physiology, Anatomy of Marine Invertebrates (continued)
MNS 210 Dr. Robert Maze

Monday, 26. May 2014

8:00 Ecology, Natural History, Physiology, Anatomy of Marine Invertebrates (continued)
MNS 210 Dr. Robert Maze

10:00 Water Quality
MNS 210 Dr. Laurie Landeau – Marinetics, Inc.
AQUAVET® Associate Director

13:00 Water Quality Lab (half of the class)
MNS 103 Dr. Laurie Landeau

13:00 Life Cycles of Aquarium Raised Fish (other half of class)
MNS 210 Brad Bourque, RWU Marine Laboratory Manager

15:00 Water Quality Lab (repeat)
MNS 103 Dr. Laurie Landeau

15:00 Life Cycles of Aquarium Raised Fish (repeat)
MNS 210 Brad Bourque, RWU
### 2013 Schedule for AQUAVET® I

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Room</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>18:30</td>
<td>Historical Aspects of the AQUAVET® Program</td>
<td>MNS 210</td>
<td>Dr. Donald Abt – AQUAVET® Founding Director</td>
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<tr>
<td><strong>Tuesday, 27. May 2014</strong></td>
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<tr>
<td>8:00</td>
<td>Using Animals in Research</td>
<td>MNS 200</td>
<td>Dr. Amy Hancock – Ronemus – Marine Biological Laboratory</td>
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<tr>
<td>9:30</td>
<td>History of Fishes: Taxonomy from an Evolutionary and Ecological Perspective</td>
<td>MNS 210</td>
<td>Dr. David Taylor – Roger Williams University</td>
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<td>11:30</td>
<td>Fish Anatomy – Structure and Function</td>
<td>MNS 210</td>
<td>Dr. David Taylor</td>
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<tr>
<td>13:00</td>
<td>Anatomy, Diseases and Zoonotic Implications of Marine Invertebrates</td>
<td>MNS 210</td>
<td>Dr. Roxanna Smolowitz – Roger Williams University</td>
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<td>18:30</td>
<td>Fish Anatomy – Structure and Function (continued)</td>
<td>MNS 210</td>
<td>Dr. David Taylor</td>
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<tr>
<td><strong>Wednesday, 28. May 2014</strong></td>
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<tr>
<td>8:00</td>
<td>Invertebrates – WET LAB – (need dissection kit, lab coats)</td>
<td>MNS 103</td>
<td>Drs. Smolowitz and Maze</td>
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<tr>
<td>13:00</td>
<td>Rocky Intertidal Invertebrate Collecting</td>
<td>LOW TIDE 13:20</td>
<td>leave from MSN 103 (dress appropriately – will be outside and in water)</td>
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<tr>
<td>15:00</td>
<td>Invertebrates – WET LAB – (continued)</td>
<td>MNS 103</td>
<td>Drs. Smolowitz and Maze</td>
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<td>18:00</td>
<td>Invertebrates – WET LAB – (continued)</td>
<td>MNS 103</td>
<td>Dr. Maze</td>
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<td>NOTE: re-starting lab at 6pm – instead of 6:30pm</td>
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<tr>
<td><strong>Thursday, 29. May 2014</strong></td>
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<tr>
<td>8:00</td>
<td>Fish Anatomy – Structure and Function (continued)</td>
<td>MNS 210</td>
<td>Dr. David Taylor</td>
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<tr>
<td>13:00</td>
<td>Tides</td>
<td>MNS 210</td>
<td>Dr. Donald Abt</td>
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</tbody>
</table>
2013 Schedule for AQUAVET® I

15:00 Tall Ships
MNS 210 Dr. Donald Abt

16:00 Fish Nutrition
MNS 210 Dr. Dale Leavitt – Roger Williams University

18:30 Fish Nutrition (continued)
MNS 210 Dr. Dale Leavitt

Friday, 30. May 2014

8:00 Fish Physiology
MNS 210 Dr. Lysa Posner – NC State University

13:00 Fish Physiology (continued)
MNS 210 Dr. Lysa Posner

18:30 Career Building in Veterinary Medicine
MNS 210 Dr. Ted Mashima – Association of American Veterinary Medical Colleges

Saturday, 31. May 2014

8:00 Fish Diagnostics and Techniques WET LAB
MNS 103 (need dissection kit, lab coats)
Dr. Rod Getchell – Cornell University
AQUAVET® Associate Director

9:00 Fish Anatomy – Structure and Function WET LAB
MNS 103 (need dissection kit, lab coats)
Dr. David Taylor

13:00 Microbiology Lab Set Up (lab coats and dissection kits)
MNS 106 Dr. Lester Khoo – Mississippi State University
AQUAVET® Director Emeritus

15:00 Microbiology – Specimen Necropsy (lab coats and dissection kits)
MNS 106 Dr. Lester Khoo

18:00 AQUAVET® Joint Class Picnic
courtyard

Sunday, 1. June 2014 – OFF

8:30 leave campus for OPTIONAL Whale Watch – Barnstable, MA
10:00 check in for Whale Watch
11:00 OPTIONAL Whale Watch $35 per person
Barnstable, MA
2013 Schedule for AQUAVET® I

Monday, 2. June 2014

6:00  
leave RWU for Sandwich, MA  
breakfast on the way

8:00  
**Sandwich Fish Hatchery visit**  
Craig Lodowsky

9:15  
return to RWU

11:00  
Selected Bacterial and Viral Pathogens of Fishes  
MNS 210  
Dr. Lester Khoo

13:00  
Selected Bacterial and Viral Pathogens of Fishes (continued)  
MNS 210  
Dr. Lester Khoo

15:30  
Viral Diseases of Coldwater Fishes  
MNS 210  
Dr. Jan Lovy – NJ Div of Fish & Wildlife, Office of Fish & Wildlife Health & Forensics  
Dr. Laura Coffee – NJ Animal Health Diagnostic Lab

18:30  
Parasitic and Fungal Diseases of Coldwater Fishes  
MNS 210  
Dr. Jan Lovy

Tuesday, 3. June 2014

8:00  
**Selected Bacterial and Viral Pathogens of Fishes**  
MNS 103  
Micro Lab (lab coats and dissection kits)  
Dr. Lester Khoo

13:00  
**Student Seminars**  
MNS 210

1. Rebecca Fellman – Aquatic Prosthetics
2. Andrea Aplasca – Anesthesia of Elasmobranchs
3. Timothy Wu – The Global Status of Aquaculture
4. Matthew Jones – Aquaponics: A Symbiotic Approach to Aquaculture

15:00  
Normal Fish Histology  
MNS 210  
Dr. Sal Frasca – University of Connecticut

18:30  
**Normal Fish Histology – Microscope Lab**  
MNS 103  
Dr. Sal Frasca

20:30  
AQUAVET® I T-shirt LOGO contest  
MNS 210  
Dr. Laurie Landeau
2013 Schedule for AQUAVET® I

Wednesday, 4. June 2014

8:00  Student Seminars
MNS 210

5. Joanna Choi – Aquaculture of the Southern Bluefin Tuna
6. Robert Martinez – Common Dietary Problems in Captive Crocodilians
7. Tatiana Cichanowicz – Cold Sunning in Sea Turtles
8. Elizabeth Hodges – Visual Ecology

10:00 Environmental/Nutritional Disease of Coldwater Fishes
MNS 210 Dr. Jan Lovy

11:00 Disease Investigations and Case Reports for Coldwater Fishes
MNS 210 Drs. Jan Lovy and Laura Coffee

13:00 Pathology and Histopathology of Fish
MNS 210 Dr. Judy St. Leger – SeaWorld Parks and Entertainment

16:00  Pathology and Histopathology of Fish – Microscope Lab
MNS 103 Dr. Judy St. Leger

18:30 Drugs used in Aquaculture – Regulations, labels, FDA, CVM and Medicated Feeds
MNS 210 Dr. Paul Bowser – Cornell University
AQUAVET® Associate Director Emeritus

Thursday, 5. June 2014

8:00  Diseases of Warmwater Aquaculture Fishes – Infectious Diseases
MNS 210 Dr. Sherman Jack – Mississippi State University

10:00 Diseases of Warmwater Aquaculture Fishes – Non-Infectious Diseases
MNS 210 Dr. Sherman Jack

13:00 Culture and Health Concerns of Baitfish and Hybrid Striped Bass
MNS 210 Dr. Sherman Jack

14:00 Aquatic Birds
MNS 210 Dr. Cindy Driscoll – Maryland Department of Natural Resources

18:30  Aquatic Birds Anatomy Lab – WEB LAB – (dissection kits, lab coats)
MNS 103 Dr. Cindy Driscoll

Friday, 6. June 2014

8:00  Corals
MNS 210 Dr. Ilze Berzins – One World, One Water, One Health, LLC
2013 Schedule for AQUAVET® I

10:00  Aquaculture Systems
       MNS 210  David Cerino, Roger Williams University

13:00  What is Unique about Eye Structure and Sight: From A (Avian) to Z (Zalophus or Zebrafish)
       MNS 210  Dr. Carmen Colitz – Aquatic Animal Eye Care, LLC

18:30  OPEN

Saturday, 7. June 2014

8:00  Shrimp Industry
      MNS 210  Dr. Robert Bullis – Florida Keys Community College

13:00  Student Seminars
       MNS 210  9. Wesley Siniard – Bottlenose Dolphins as Sentinels for Human Health and the HERA Project
                10. Melchior de Bruin – The European View on the Responsible Use of Antibiotics in Aquaculture
                11. Greg Wilkes – ???
                12. Sarah Knowles – Reproductive Strategies of Elasmobranchs

Sunday, 8. June 2014  OPEN

Monday, 9. June 2014

8:00  Student Seminars
      MNS 210  13. Meghana Pendurthi – Viral Hemorrhagic Septicemia
                14. Jessica Koppie–Fox – Papilloma Virus in Aquatic Mammals
                15. Alexandra Vignocchi – ???
                16. Eric Littman – Slashers and Smashers: a tale of Mantis Shrimp

10:00  Harmful Algal Blooms
       MNS 210  Dr. Chris Gobler – Stonybrook Southampton

13:00  Medical Aspects of HABs – and Aquatic Toxicology
       MNS 210  Dr. Lisa Murphy – University of Pennsylvania

14:00  (Sea)food Safety – Emphasis on Toxins
       MNS 210  Dr. Lisa Murphy

15:00  Other Aspects of Aquatic Toxicology and Selected Cases
       MNS 210  Dr. Lisa Murphy
2013 Schedule for AQUAVET® I

18:30 Economic Considerations in the Development of Aquaculture Operations
MNS 210 Dr. Laurie Landeau

Tuesday, 10. June 2014

Today is overnight trip to Riverhead, NY. Take what you will need with you.

8:00 Leave RWU for Mystic (after breakfast)

9:30 Mystic Aquarium Tour
Dr. Allison Tuttle et al – Mystic Aquarium and Institute for Exploration

15:00 Leave Mystic for Riverhead
15:30 arrive at New London Ferry Terminal
16:00 Ferry leaves for Orient Point, NY
17:30 Ferry arrives at Orient Point
drive to Riverhead, NY

18:30 Coral Biology, Husbandry and Propagation
Joe Yaiullo – Atlantis Marine World

Wednesday, 11. June 2014

8:00 Atlantic Marine World Aquarium visit
staff

8:30 Riverhead Foundation for Marine Research and Preservation Visit
staff

9:00 RFMRP – Clinical Techniques for Marine Mammals and Aquatic Animals –
WET LAB – Bring Old Clothes or Clothing Covers
Dr. Robert DiGiovanni, Jr.
Ms. Kimberly Durham
Dr. Richard Hanusch
Dr. Robert Pisciotta

13:00 RFMRP – Clinical Techniques for Marine Mammals and Aquatic Animals –
(continued)

16:30–16:45 Leave Riverhead for Bristol
17:45 arrive at Orient Point, NY
18:00 Ferry leaves for New London, CT
19:30 arrive New London
drive to Bristol, RI (about 1.5 hours)
2013 Schedule for AQUAVET® I

Thursday, 12. June 2014

8:00 Biology, Medicine and Surgery of Sea Turtles
MNS 210 Dr. Charlie Innis – New England Aquarium  
Dr. Julie Cavin – New England Aquarium

13:00 Sea Turtle Necropsy Lab (lab coats, dissection kit)
MNS 103 Drs. Charlie Innis and Julie Cavin

18:30 Resource Assessment
MNS 210 Dr. Paul Rago – National Marine Fisheries Service

Friday, 13. June 2014

8:00 Why Fix Nemo? – An Overview of Pet Fish Medicine
MNS 210 Dr. Helen Sweeney – Aquatic Veterinary Services of WNY

10:00 The Ornamental Fish Industry
MNS 210 Dr. Helen Sweeney

11:00 The Clinical Importance of Aquatic Life Support Systems and Water Quality
MNS 210 Dr. Helen Sweeney

13:00 Pet Fish Medicine – Common Diagnostic Techniques
MNS 210 Dr. Helen Sweeney

14:30 Treatment of Pet Fish – Case Examples
MNS 210 Dr. Helen Sweeney

16:00 Fish Anaesthesia and Surgical Techniques
MNS 210 Dr. Geoffrey Groocock – Cornell University

18:30 Student Seminars
MNS 210

17. Ashley Cherry – Aquatic Predator Keystone Species: Importance of Top Down Ecology
18. Caroline Beach – Anatomical, Physiological, and Behavioral Specializations of Archer Fish for Hunting
20. Luigi Topacio – Causes of Mortality among Hawaiian Monk Seals
Saturday, 14. June 2014

8:00 Fish Surgery Lab – HALF of CLASS
MNS 103 (no special equipment needed by students)
   Drs. Helen Sweeney and Geoffrey Groocock

8:00 RWU Shellfish Facility Visit (half of the class)
Meet MNS 103 Karin Tammi – Roger Williams University

10:00 Both halves switch

13:00 Student Seminars
MNS 210

21. Jessica Allen – Zoonoses in Aquatic Animals
22. Michael Sanders – Conservation and Rehabilitation of Sirenia
24. Lynda Dirk – ???

Sunday, 15. June 2014  OPEN

Monday, 16. June 2014

8:00 Marine Mammals
MNS 210 Dr. Allison Tuttle et al – Mystic Aquarium
   Dr. Cara Field – Georgia Aquarium
   Dr. Inga Sidor – University of New Hampshire
   Dr. Paul Calle – Zoological Health Program, Wildlife Conservation
   Society

8:00 Marine Mammals – Taxonomy, Anatomy, Physiology
MNS 210 Dr. Field

9:30 Marine Mammals – Husbandry and Captive Environment
MNS 210 Dr. Field

11:00 Marine Mammal Life Support
MNS 210 Dr. Field

13:00 Marine Mammal Diseases
MNS 210 Dr. Tuttle

15:30 Marine Mammals – Government Rules and Regulations
MNS 210 Dr. Tuttle

16:00 Penguins!
MNS 210 Dr. Donald Stremme – AQUAVET® Director
2013 Schedule for AQUAVET® I

18:30 Marine Mammals – Pathology, Toxicology, Principals of Necropsy, Forensics – “How To”
MNS 210 Dr. Sidor

Tuesday, 17. June 2014

8:00 Marine Mammal Clinical Techniques
MNS 210 Dr. Calle
9:15 Marine Mammal Toxicology
MNS 210 Dr. Sidor
11:00 Marine Mammal Stranding Cases
MNS 210 Dr. Sidor
13:00 Marine Mammal Case Studies
MNS 210 Dr. Calle
14:00 Marine Mammal Stranding Cases
MNS 210 Dr. Brent Whitaker – National Aquarium, Baltimore
15:00 Large Display Aquaria
MNS 210 Dr. Brent Whitaker
18:30 Oyster Culture, Environment, Disease and Nutrition
MNS 210 Dr. Robert Maze

Wednesday, 18. June 2014

6:00 Iv RWU for Woods Hole
7:30 Required OSHA training to be in the necropsy lab
Carriage House Dr. Michael Moore – Woods Hole Oceanographic Institute
Breakfast during this training

8:00 Marine Mammal Necropsy Lab WET LAB
WHOI (need dissection kit – protective clothing will be provided)
Consider bring change of clothes for after this lab
Dr. Michael Moore – Woods Hole Oceanographic Institution (WHOI)
Drs. Tuttle, Calle, Sidor, Field

12:30 Students Present Results of Necropsies for the Group
Carriage House Dr. Sidor leading discussion

13:00 catered lunch
Carriage House
2013 Schedule for AQUAVET® I

14:00 Stranding & What We Can Learn from Strandings, Including Large Whale
Carriage House Strandings and Mas Strandings
Dr. Moore

15:30 Diving in Marine Mammals
Carriage House Dr. Field

16:30 Drive back to RWU
        dinner on way home

Thursday, 19. June 2014

8:00 Regulations in Aquaculture
MNS 210 Dr. Gary Egrie – USDA APHIS Veterinary Services

circa
10:00 leave RWU for Boston – New England Aquarium
12:00 estimated arrival time – lunch Faneuil Hall
13:00 New England Aquarium – Behind the Scenes Tours
Drs. Innis and Cavin and staff
15:00 open time to visit NEAQ on own
        (aquarium closes at 5pm)
circa
17:15 Leave Boston for RWU
19:00 OPEN – dinner on own

Friday, 20. June 2014

8:00 Amphibians!
MNS 210 Dr. Leigh Clayton – National Aquarium
10:00 Reptile Medicine
MNS 210 Dr. Leigh Clayton
13:00 Aquatic Immunity
MNS 210 Dr. Erin Bromage – University of Massachusetts Dartmouth
18:30 AQUAVET®I Clambake

Saturday, 21. June 2014

By 10:00 check out – back to reality