DEPARTMENT: BIOLOGICAL SCIENCES
COLLEGE: COLLEGE OF SCIENCE

RECOMMENDED COURSE IDENTIFICATION:
PREFIX ZOO__ COURSE NUMBER ___ 6556_ LAB CODE (L or C) ___
(TO OBTAIN A COURSE NUMBER, CONTACT MJENNING@FAU.EDU)
COMPLETE COURSE TITLE: Aquatic Animal Health

CREDITS : 3
TEXTBOOK INFORMATION: Fish medicine, 1993, M.K. Stoskopf
Principal Diseases of Marine Fish and Shellfish, 1990, C.J. Sinderman,

GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR X SATISFACTORY/UNSATISFACTORY

COMPLETE COURSE TITLE: Aquatic Animal Health

COURSE DESCRIPTION, NO MORE THAN THREE LINES: A comprehensive study of basic disease processes in aquatic organisms, with an emphasis on marine fish and invertebrates.

PREREQUISITES *: Graduate Status
COREQUISITES *:
REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL)*:

* PREREQUISITES, COREQUISITES AND REGISTRATION CONTROLS WILL BE ENFORCED FOR ALL COURSE SECTIONS.

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE: PH.D. IN THE RELEVANT FIELD

Faculty contact, email and complete phone number:
Dr. Susan Laramore and Dr. Joshua Voss
slaramo1@hboi.fau.edu & jvoss2@fau.edu
(772) 242-2525(Laramore) (772)242-2538(Voss)

Please consult and list departments that might be affected by the new course and attach comments.

Faculty contact, email and complete phone number:
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Please consult and list departments that might be affected by the new course and attach comments.

Approved by:
Department Chair: 
College Curriculum Chair: 
College Dean: 
UGPC Chair: 
Graduate College Dean: 
UFS President: 
Provost: 

Date: 11/30/14
2/4/14
3/14/14
1/22/14
2/26/14

1. Syllabus must be attached; see guidelines for requirements:

2. Review Provost Memorandum: Definition of a Credit Hour
www.fau.edu/provost/files/Definition_Credit_Hour_Memo_2012.pdf

3. Consent from affected departments
(attach if necessary)

Email this form and syllabus to UGPC@fau.edu one week before the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website prior to the meeting.

FAUnewcourseGrad—Revised September 2013
Course Syllabus for Aquatic Animal Health

1. Course title/number, number of credit hours

Aquatic Animal Health – ZOO 6556 – 3 credit hours

2. Course prerequisites

Graduate status

3. Course logistics

a. Fall 2014
b. Notation if online course – N/A
c. Class location and time (if classroom-based course) – To be determined

4. Instructor contact information

Lead Instructor:
Dr. Susan Laramore (772-242-2525) slaramo1@hboi.fau.edu
Lab II Building Room #104

Other:
Dr. Josh Voss (772-242-2538) jvoss2@hboi.fau.edu

Instructor Office Hours:
Laramore: Mon 10-11 am, Fri 10-11 am and by appointment
All other instructors by appointment

5. TA contact information (if applicable)

N/A

6. Course description

This course is focused on understanding diseases that are important in natural aquatic environments and artificial situations such as aquaculture operations. This course includes identification, life histories, pathology and control of important pathogenic organisms of fish and invertebrates such as bacteria, protozoans, viruses and fungi.

7. Course objectives/student learning outcomes

This course aims to introduce students to the fundamental and current issues as they pertain to host/pathogen interactions in aquatic environments.

Students will understand the basic disease processes in aquatic organisms and become familiar with tools used for disease diagnosis and ways in which disease is managed in aquatic environments with emphasis on aquaculture operations.
8. Course evaluation method

There will be a midterm exam, accounting for 30% of the student's cumulative performance, a final exam that accounts for 30% of the cumulative performance, a term paper that accounts for 20% of the cumulative performance and the remaining 20% will be based on class presentations and paper discussions. The overall grade in the course is derived from the cumulative performance according to the following table.

9. Course grading scale

<table>
<thead>
<tr>
<th>Cumulative Performance</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;94%</td>
<td>A</td>
</tr>
<tr>
<td>&gt;90% - 94%</td>
<td>A-</td>
</tr>
<tr>
<td>&gt;87% - 90%</td>
<td>B+</td>
</tr>
<tr>
<td>&gt;83% - 87%</td>
<td>B</td>
</tr>
<tr>
<td>&gt;80% - 83%</td>
<td>B-</td>
</tr>
<tr>
<td>&gt;75% - 80%</td>
<td>C+</td>
</tr>
<tr>
<td>&gt;65% - 75%</td>
<td>C</td>
</tr>
<tr>
<td>&gt;60% - 65%</td>
<td>C-</td>
</tr>
<tr>
<td>&gt;57% - 60%</td>
<td>D+</td>
</tr>
<tr>
<td>&gt;53% - 57%</td>
<td>D</td>
</tr>
<tr>
<td>&gt;50% - 53%</td>
<td>D-</td>
</tr>
<tr>
<td>&lt;50%</td>
<td>F</td>
</tr>
</tbody>
</table>

10. Policy on makeup tests, late work, and incompletes

If a student cannot attend an exam or hand in a homework project on time due to circumstances beyond their control then the instructor may assign appropriate make-up work. Students will not be penalized for absences due to participation in University-approved activities, including athletic or scholastics teams, musical and theatrical performances, and debate activities. These students will be allowed to make up missed work without any reduction in the student's final course grade. Reasonable accommodation will also be made for students participating in a religious observance. Also, note that grades of Incomplete ("I") are reserved for students who are passing a course but have not completed all the required work because of exceptional circumstances. A grade of "I" will only be given under certain conditions and in accordance with the academic policies and regulations put forward in FAU's University Catalog. The student must show exceptional circumstances why requirements cannot be met. A request for an incomplete grade has to be made in writing with supporting documentation, where appropriate.

11. Special course requirements (if applicable): N/A

12. Classroom Etiquette Policy: University policy on the use of electronic devices states: "In order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular telephones and pagers, are to be disabled in class sessions." You may be asked to leave the class session for noncompliance.

13. Student Honor Policy: Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is
considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at http://www.fau.edu/cti/4.001_Code_of_Academic_Integrity.pdf

Cheating is a serious offense. If you are caught cheating, you will receive an F in the course. In addition, you will be referred to the Dean of Student Services and charged with an academic crime. Test procedures and rules will be stated at the beginning of each exam.

14. Disabilities Policy: In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) -- in Boca Raton, SU 133 (561-297-3880); in Davie, MOD 1 (954-236-1222); in Jupiter, SR 117 (561-799-8585) and follow all OSD procedures.

15. Required texts/readings

There is no required textbook.

Reading assignments related to the topics under discussion will be drawn from the current scientific literature and will form the basis of classroom discussions. A list of reading assignments, including the following are provided, but are not inclusive. Readings will also include chapters from the following texts:

Fish medicine, 1993, M.K. Stoskopf
Principal Diseases of Marine Fish and Shellfish, 1980, C.J. Sinderman,

Week 1:

Week 2:
Kennedy-Stoskopf. 1993. Immunology, Part 1, Chapter 11, in Stoskopfs Fish Medicine p 149-158.

Week 3:

Week 4:

Week 5:
Select readings from Sindermanns text (Chapters 3, volumes 1 (fish) and 2 (shellfish)
Select readings from Stofkopfs text (Chapters 24, 67, 78)

Week 6:
Select readings from Sindermanns text (Chapters 2, volumes 1 and 2)
Select readings from Stofkopf's text (Chapters 26, 69, 80, 88)

Week 7:
Select readings from Sindermanns text (Chapters 5, 6 and 7 volumes 1 and 2)
Select readings from Stofkopf's text (Chapters 27, 70, 81, 89)

Week 8:
Select readings from Sindermanns text (Chapters 4 and 8, volumes 1 and 2)
Select readings from Stofkopf's text (Chapters 25, 28, 68, 71, 79, 82, 90)

Week 9:
Select readings from Sindermanns text (Chapter 17, volumes 1 and 2).


Week 10:
Burge et al. 2014. Climate change influences on marine infectious diseases: Implications for management and society. Annual Review of Marine Science (6): TBD. Currently found online

Week 11:

Week 12:
Select readings from Sindermanns text (Chapters 19, volume 1 and Chapter 17, volume 2).
Select readings from Stofkopf's text (Chapter 17)

Week 13:

Week 14:
Select readings from Stofkopf's text (Chapter 21, 65, 75)

Week 15:
Select readings from Stofkopf's text (Chapter 22, 76, 87)

Week 16:
Student papers presented

16. Supplementary/recommended readings (optional)

17. Course topical outline

Week 1: Introduction to disease/pathology
Week 2: Immunology of fishes and invertebrates
Week 3: Introduction to Epidemiology
Week 4: Diagnostic Tools
Week 5: Bacterial Diseases
Week 6: Viral Diseases
Week 7: MidExam; Protozoan Diseases
Week 8: Fungal Diseases, Neoplasias
Week 9: Pollution associated diseases
Week 10: Diseases and Climate Change
Week 11: Disease Resistance and Ocean acidification
Week 12: Aquatic Diseases and public Health
Week 13: Advances in Aquatic Medicine
Week 14: Water Quality Diseases
Week 15: Nutritional Diseases
Week 16: Papers due; Final Exam