Spring 2018

BSC 401/501: sec.201–Ichthyology

4 hrs CRN 2217/2234

lecture 1700 – 1815 TR WAEC 1227

lab 1830 – 2120 T WAEC 1227

**Instructor:**

Thomas G. Jones

Office: Morrow G 115 E-Mail: [Jonest@Marshall.edu](mailto:Jonest@Marshall.edu) Cell phone: 389-5832

**Required Texts:**

Diversity of Fishes

Top of Form

**Author:** Helfman   
**ISBN:** 9781405124942  
**Copyright Year:** 2009  
**Publisher:** Blackwell Publishing, Incorporated

Bottom of Form

Fishes of Indiana

Top of Form

**Author:** Simon   
**ISBN:** 9780253223081  
**Copyright Year:** 2011  
**Publisher:** Indiana University Press

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**Course Description:**

Anatomy, physiology, ecology, zoogeography, economic importance and classification of major groups and representative local species of fishes. 2 lec-2 lab and field.

**Course Student Learning Outcomes and Assessment Measures:**

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| --- | --- | --- |
| Course Student Learning Outcome | How Practiced in this Class | How Assessed in this Course |
| Develop understanding of fish anatomy, evolution, and physiology. | Class lecture (CL), Hands on examples and discussion (HOED) | Labs, Homework, Exams, Project |
| Work on entry level understanding of the integration of land use, human impact, geology, topography, and evolutionary history that develops fish communities over time and space | CL, HOED | Labs, Homework, Exams, Project |
| Gain a generalized understanding of the human utilization of various fish stocks and how we must manage those stocks to maximize benefits and reduce impacts/destabilization of those stocks. | CL, HOED | Labs, Homework, Exams, Project |
| Learn the methods/techniques that fisheries biologists utilize to assess fish stocks and conservation goals. | CL, HOED | Labs, Homework, Exams, Project |
| Begin to correctly identify fishes from the Ohio River drainage, Roanoke River Drainage, Monkey River drainage in Belize, and the common coral reef fishes of the Caribbean. | CL, HOED | Labs, Homework, Exams, Project |

**Class Attendance:** In this course the instructor will require active participation of each student during each class meeting. Class participation points and homework will only be accepted late, when accompanied with appropriate documentation. By missing class you will not be able to participate in class discussions and the class will not benefit from your ideas and comments. If you are absent, you must contact the professor as soon as possible.

**Students with Disabilities:** Marshall University is committed to equal opportunity in education for all students, including those with physical, learning and psychological disabilities.  University policy states that it is the responsibility of students with disabilities to contact the Office of Disabled Student Services (DSS) in Prichard Hall 117, phone 304 696-2271 to provide documentation of their disability.  Following this, the DSS Coordinator will send a letter to each of the student’s instructors outlining the academic accommodation he/she will need to ensure equality in classroom experiences, outside assignment, testing and grading.  The instructor and student will meet to discuss how the accommodation(s) requested will be provided.  For more information, please visit <http://www.marshall.edu/disabled> or contact Disabled Student Services Office at Prichard Hall 11, phone 304-696-2271.”

The reason for this request is so that students with disabilities understand both their rights and responsibilities regarding requesting accommodations.

**Policy on Academic Dishonesty:** I take cheating very seriously. I will follow the student handbook on definitions and actions precisely.

**Other Policies:**

This URL can be used to access the University wide policies concerning a host of student concerns/issues.

<http://www.marshall.edu/academic-affairs/?page_id=802>

By enrolling in this course, you agree to the University Policies listed.

**Requirements:**

Assignments Possible Points

Graduate student presentations 100 pts\*

Class Participation 200 pts

Group Presentation/Project 200 pts

Journal presentations 100 pts

Quizzes 100 pts

Knowledge Celebration 1 100 pts

Knowledge Celebration 2 (final) 100 pts

Total: 900 pts

**Assignment Details:**

1. A series of activities will be completed by students both individually and within small groups. The results will be submitted via email.
2. A small group of students will present the results of a group project using power point. The groups and the projects will be chosen by the students but verified by the professor.
3. Ten 10 point quizzes will be given throughout the course. The quizzes will cover material discussed during the last class and material read from the current chapter readings.
4. Small student groups will present a summary of an article to the rest of the class using power point.
5. Two 100 point exams will be given at midterm and at the end of the course.
6. Graduate students species presentations with conservation focus

**No makeups will be given without a University excused absence.**

**Grading Scale:**

90% - 100% = A

80% - 89% = B

etc…

**Office Hours**

Tuesday/Thursday 9:30 pm to 11 am; Wednesday 9 AM to 12 PM, 2:20 PM to 5 PM or by appointment

**Schedule**

|  |  |
| --- | --- |
| **Date** | **Assignments** |
| Week 1 Jan 8 | Chapter 1 Intro  Chapter 2 Systematic Procedures |
| Week 2 Jan 15 | Chapter 3 Skeleton, skin, and scales  Chapter 4 Soft anatomy |
| Week 3 Jan 22 | Chapter 5 Oxygen, metabolism, and energetics  Chapter 6 Sensory systems |
| Week 4 Jan 29 | Chapter 7 Homeostasis  Chapter 8 Functional Morphology of locomotion and feeding |
| Week 5 Feb 5 | Chapter 9 Early life history  Chapter 10 Juveniles, adults, age, and growth |
| Week 6 Feb 12 | Chapter 11 “a history of fishes”  Chapter 12 Chondrichthyes: |
| Week 7 Feb 19 | Midterm Chapters 1 to 12 |
| Week 8 Feb 26 | Chapters 13 Living representatives of primitive fishes  Chapter 14 Teleosts 1 |
| Week 9 March 5 | Chapter 15 Teleosts 2  Chapter 16 Zoogeography |
| Week 10 March 12 | Chapter 17 Fish Genetics  Chapter 18 Special habitats and adaptations |
| Week 11 March 19 | Spring Break |
| Week 12 March 26 | Chapter 19 Fishes as predators  Chapter 20 Fishes as prey |
| Week 13 April 2 | Chapter 21 Fishes as social animals: reproduction  Chapter 22 Fishes as social animals: aggregation etc |
| Week 14 April 9 | Chapter 23 Cycles of activity and behavior  Chapter 24 Individuals, populations, and assemblages |
| Week 15 April 16 | Chapter25Communites,ecosystems, etc  Chapter 26 conservation |
| Week 16 April 23 | Project Presentations |
| May 1 | Final Exam 5pm |