

**RAPTORS AND SEA MONSTERS:
AN OVERVIEW OF MESOZOIC SAURISCHIANS AND MARINE REPTILES**

Fall 2007 - Wednesday 5-630 PM - VLSB 2062
IB 98 CCN: 43030, IB 198 CCN: 43495; 2 Units
<http://www.patriotradio.org/ib198>

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Overview: This course is designed to give students an introductory knowledge of the taxonomy, structural morphology, and possible behavioral patterns of marine reptiles and theropods of the Mesozoic Era, as well as the ecological settings of the time. Classes will include lecture, discussion, and multimedia presentation. Pertinent graphs, visuals, charts, etc. will be distributed online and made available before the relevant lecture.

Grading: There will be one quiz and two brief tests over the course of the semester. These will have multiple choice and short answer problems, and are designed to be sure students are grasping the material.

Schedule:

Week 1: Introduction, basic taxonomy, geologic timescale, reptilian skeletal morphology

Week 2: Quiz on Week 1 material, Begin marine reptiles: Early Mesozoic radiation of marine reptiles (phytosaur, teleosaur, mesosaur), Triassic ichthyosaurs, ichthyosaur morphology

Week 3: Jurassic ichthyosaurs, ichthyosaur extinction, introduction to Sauropterygia: placodonts, nothosaurs, plesiosaurs

Week 4: Jurassic plesiosaurs, pliosaurs

Week 5: Cretaceous plesiosaurs, pliosaurs, mosasaurs

Week 6: More mosasaurs, extinction, modern marine reptiles (turtles, marine crocodiles), marine mammals

Week 7: Test and movie: Walking with Dinosaurs (A Cruel Sea)

Week 8: Saurischia: Traits, sauropodomorphs, group changes in skeletal system, "Prosauropods" [Plateosaurus, etc], trace fossils.

Week 9: Sauropoda: Diplodocidae and Brachiosaurids, fossils, structure, and possible behavior [Diplodocus, Dicraeosaurus, Supersaurus, Brachiosaurus]

Week 10: Theropods: The theropod skeleton, theropod movement, Carnosauria [Ceratosaurus, Allosaurus, Spinosaurus, outgroups],

Week 11: Coelurosauria: T. Rex, Ornithomimids, Oviraptors and Therizinosaurs, trends in evolution, analysis of T-Rex [T. Rex, Oviraptor, "Nano Rex", Therizinosaurs and Dinohierus]

Week 12: Maniraptors: Troodontids, Dromaeosaurs, and Birds. Unifying traits and behavior [Troodonts, Utahraptor/Deinonychus/Velociraptor, Archaeopteryx, and modern birds]

Week 13: Test and movie: Jurassic Park