Biology 495: Monster Biology  
Syllabus, Spring 2002  
T TR 1100-1215

Dr. Warrick

**Week:** Lecture topic (movie)

Jan. 8, 10 A brief history of monsters: Personal to apocalyptic; Vampires, werewolves  
*(The Wolfman, 1941 ★★★★★)*

Jan. 15, 17 Real Big Monsters: The evolution of gigantism; Dinosaurs *(Jurassic Park, 1993 ★★★)*

Jan. 22, 24 Cursorial vertebrates: Scaling, Biomechanics of musculoskeletal systems  
*(Godzilla, 1954 ★★★★; Godzilla, 1998 ★; see also Night of the Lepus ★★★)*

Jan. 29, 31 Cursorial invertebrates: Scaling, Biomechanics of walking, running, and adhesion  
*(Them! 1954 ★★★; see also Tarantula, 1955 ★★★)*

Feb. 5, 7 *(When Dinosaurs Ruled the Earth, 1969)*

☞ Thursday, 5 Feb Quiz #1 (50 points); ☞

Feb. 12, 14 Volant vertebrates: Scaling, biomechanics and aerodynamics *(Rodan, 1953 ★★★)*

Feb. 19, 21 Volant invertebrates: Scaling, Biomechanics, aerodynamics. *(The Deadly Mantis, 1957 ★★; see also Mothra, 1962 ★★★)*

Feb. 26, 28 Aquatic animals: Diving Physiology, Reynolds number, flow, and locomotion. *(It Came From Beneath the Sea, 1955 ★★; see also Jaws III ★; Creature From the Black Lagoon 1954 ★★★; Godzilla 1998)*

Mar. 5, 7 Fossorial critters: Biomechanics, scaling, and physiology *(Tremors ★★★; The Mole People, 1956 ★★; see also Dune, 1984 ★★★)*

☞ Thursday, 7 March Quiz #2 (50 points); ☞

Mar. 12, 14 **Spring Break**

Mar. 19, 21 The physiology of gigantism: scaling of the cardiovascular and nervous systems  
*(King Kong, 1932 ★★★★★)*

Mar. 26, 28 The development of monsters: Eggs, babies, and my how you’ve grown! *(Alien, 1982 ★★★☆☆; see also Twenty Million Miles to Earth, 1957; Godzilla 1998)*

April 2, 4 The ecology of giants: trophic relationships *(The X-Files, “Big Blue” ★★★; see also*
April 9, 11  The evolution of monsters, relic populations and MVP (*The Planet of the Apes, 1968 ★★★★; see also The Creature Walks Among Us, 1956 ★★★*)

April 16, 18  Commie monsters: Parasitoids and other body snatchers (*Invasion of Body Snatchers 1956 ★★★; see also Invasion of Body Snatchers, 1978 ★★★, The Thing, 1951 ★★★ & 1985 ★★★*)

April 23, 25  Exobiology: Critters from other planets.

April 30, May 2  ☢️Thursday, 2 May Quiz #3 (50 points); ☩

May 8 (Tues)  Final Papers due

Grading:  
  Exams (50 x 3): 150 pts  
  Papers:(20 x 5) 100 pts  
  Final Paper 50  
  Total: 300