

Below is a potential schedule for structuring a class around *Horned Armadillos and Rafting Monkeys* over a typical, 15-week semester. The goal of such a class is to familiarize students not only with the history of mammals in South America but also the variety of research undertaken by vertebrate paleontologists, particularly those studying terrestrial organisms and ecosystems.

With a class that meets twice a week (e.g., Tuesdays and Thursdays), one class each week can focus on a particular site and its fauna (column 2), while the other can focus on a particular research technique (column 3), using the suggested article from the scientific literature as a basis for discussion (column 4). Depending on the desired format of the class and the level of the participating students, the material from the book can be presented by the instructor or by one or more students, potentially incorporating additional articles and information from the Further Reading section of the book.

Week	Book Chapter(s)	Research Topic(s)	Suggested Reading
1	Time and Space, Mammals, Tiupampa, Bolivia (Ch. 1-3),	Pollen	Jaramillo, C., et al. 2010. Effects of rapid global warming at the Paleocene-Eocene boundary on neotropical vegetation. <i>Science</i> 330:957-961.
2	Itaboraí, Brazil (Ch. 4)	Cladograms, plate tectonics	Lorente, M., L. Chornogubsky, and F. J. Goin. 2016. On the existence of non-microbiotherian Australidelphian marsupials (Diprotodontia) in the Eocene of Patagonia. <i>Palaeontology</i> 59:533-547.
3	Gran Barranca, Argentina (Ch. 5)	Phytoliths	Dunn, R. E., C. A. E. Strömberg, R. H. Madden, M. J. Kohn, and A. A. Carlini. 2015. Linked canopy, climate, and faunal change in the Cenozoic of Patagonia. <i>Science</i> 347:258-261.
4	La Gran Hondonada, Argentina (Ch. 6)	Taphonomy	Araújo Júnior, H. I. d., V. H. Dominato, C. Bertoni-Machado, and L. d. S. Avilla. 2013. Taphonomic aspects of the Pleistocene vertebrate assemblage of Itaboraí, state of Rio de Janeiro, southeastern Brazil. <i>Journal of South American Earth Sciences</i> 46:26-34.
5	Tinguiririca, Chile (Ch. 7)	Cenozoic climate, oxygen isotopes	Zachos, J., M. Pagani, L. Sloan, E. Thomas, and K. Billups. 2001. Trends, rhythms, and aberrations in global climate 65 Ma to present. <i>Science</i> 292:686-693.
6	Salla, Bolivia (Ch. 8)	Paleoelevation	Garzione, C. N., G. D. Hoke, J. C. Libarkin, S. Withers, B. MacFadden, J. Eiler, P. Ghosh, and A. Mulch. 2008. Rise of the Andes. <i>Science</i> 320:1304-1307.
7	Chucal, Chile (Ch. 9)	Paleosols and ichnofossils	Catena, A. M., D. I. Hembree, B. Z. Saylor, F. Anaya, and D. A. Croft. 2016. Paleoenvironmental analysis of the Neotropical fossil mammal site of Cerdas, Bolivia (middle Miocene) based on ichnofossils and paleopedology. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> 459:423-439.
8	Santa Cruz, Argentina (Ch. 10)	Dental microwear	DeSantis, L. R. G. 2016. Dental microwear textures: reconstructing diets of fossil mammals. <i>Surface Topography-Metrology and Properties</i> 4:023002.
9	La Venta, Colombia (Ch. 11)	Ecological diversity analysis	Kay, R. F., and R. H. Madden. 1997. Mammals and rainfall: paleoecology of the middle Miocene at La Venta (Colombia, South America). <i>Journal of Human Evolution</i> 32:161-199.

Week	Book Chapter(s)	Research Topic(s)	Suggested Reading
10	Quebrada Honda, Bolivia (Ch. 12)	Dental mesowear	Croft, D. A., and D. Weinstein. 2008. The first application of the mesowear method to endemic South American ungulates (Notoungulata). <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> 269:103-114.
11	Arroyo Chasicó, Argentina (Ch. 13)	Molecular trees and calibrating phylogenies	Mitchell, K. J., A. Scanferla, E. Soibelzon, R. Bonini, J. Ochoa, and A. Cooper. 2016. Ancient DNA from the extinct South American giant glyptodont <i>Doedicurus</i> sp. (Xenarthra: Glyptodontidae) reveals that glyptodonts evolved from Eocene armadillos. <i>Molecular Ecology</i> 25:3499-3508.
12	Acre, Brazil (Ch. 14)	Paleogeography	O’Dea, A., et al. 2016. Formation of the Isthmus of Panama. <i>Science Advances</i> 2:e1600883.
13	Catamarca, Argentina (Ch. 15)	Carbon isotopes (C3/C4)	Hynek, S. A., B. H. Passey, J. L. Prado, F. H. Brown, T. E. Cerling, and J. Quade. 2012. Small mammal carbon isotope ecology across the Miocene-Pliocene boundary, northwestern Argentina. <i>Earth and Planetary Science Letters</i> 321-322:177-188.
14	Chapadmalal, Argentina (Ch. 16)	Postcranial functional morphology	Croft, D. A., and L. C. Anderson. 2008. Locomotion in the extinct notoungulate <i>Protypotherium</i> . <i>Palaeontologia Electronica</i> 11:1A: 20 pp.
15	Tarija, Bolivia (Ch. 17)	Body mass	Toledo, N., G. H. Cassini, S. F. Vizcaíno, and M. S. Bargo. 2014. Mass estimation in fossil sloths (Xenarthra, Folivora) from the Early Miocene Santa Cruz Formation of Patagonia, Argentina. <i>Acta Palaeontologica Polonica</i> 59:267-280.