

HOWARD UNIVERSITY
 COLLEGE OF ARTS AND SCIENCES
 COMPREHENSIVE SCIENCES

LIFE SCIENCES LECTURE TIMELINE
 Fall 2017

UNIT VIII: EVOLUTION

<u>WEEK(S)</u>	<u>LECTURE TOPIC(S)</u>	<u>TEXTBOOK CHAPTER(S)</u>
November 7 th -16 th	<ul style="list-style-type: none"> Overview and Definition <p>The origin of every species of life form can be traced. The progression is from simple to complex.</p> <p>Populations evolve. Individuals do not. The antithesis of evolution is extinction.</p> Evidence <p>the chief evidence for evolution is the FOSSIL (a relic that represents a link to past life form(s). Fossils may occur as (1) entire single-celled microbes or (2) parts of/or imprints of plants, animals and fungi in soft/sedimentary rock (coal).</p> Charles Darwin and Alfred Wallace <p>"The Origin of Species" "Natural Selection"</p> Lamarck - "Use and Diverse" Timeline The Origin of the Universe <p>"The Big Bang" Theory (A.I. Oparin) "The Nitrogenous Soup" Precursors: Microspheres Coascervates</p> Prokaryotic cells Eukaryotic cells 	<p>Chapter 16</p> <p>p. 258</p> <p>Chapter 16.5</p> <p>Chapter 16.3-4</p> <p>Chapter 16.6</p> <p>Chapter 18</p> <p>Chapter 18.3</p> <p>Chapter 18.5</p> <p>Chapter 18.6</p>

<u>WEEK(S)</u>	<u>LECTURE TOPIC(S)</u>	<u>TEXTBOOK CHAPTER(S)</u>
November 7 th -16 th	<ul style="list-style-type: none"> - Mechanisms <ul style="list-style-type: none"> * mutations * biogeography * comparative anatomy * comparative embryology • Greatest Diversity of Life - At the Planet's Equator • Plant evolution <ul style="list-style-type: none"> - summary - non-vascular - vascular - ferns - gymnosperms - angiosperms - <u>Zea mays</u> • Animal evolution <ul style="list-style-type: none"> - summary - invertebrates - vertebrates <ul style="list-style-type: none"> * fishes * amphibians * reptiles * birds * mammals * <u>Homo sapiens</u> • Specifics of human evolution <ul style="list-style-type: none"> - <u>Australopithecus africanus</u> - <u>Homo habilis</u> - <u>Homo erectus</u> - <u>Homo neanderthalensis</u> - <u>Homo sapiens</u> 	<p>Chapter 16.7</p> <p>Chapter 21 p. 327</p> <p>Chapter 23 p.354</p>

WEEK(S)

LECTURE TOPIC(S)

TEXTBOOK CHAPTER(S)

IMPORTANT TOPICS

MUTATIONS and GENE POOLS

MACROEVOLUTION

MICROEVOLUTION

HARDY - WEINBERG PRINCIPLE

CREATIONISM IDEA

INTELLIGENT DESIGN IDEA

EXTINCT SPECIES

ENDANGERED SPECIES

ANTHROPOLOGY

Web site: <http://www.fws.gov/endangered/>