Information for Course Syllabus

Name of Course: Wildlife Principles Honors

Grade Level:11-12

School: ORHS

Major Assignments: Unit research projects, Poster project

Field Trips: UT Arboretum, Index of Biological Integrity at Mill Branch Creek, Frozen Head State Park

How can parents access instructional materials? Canvas

Wildlife Principles Honors
2021-2022

Term 1

History of Wildlife Management in America	**BIO1.LS2.5** Analyze examples of ecological succession, identifying and explaining the order of events responsible for the formation of a new ecosystem in response to extreme fluctuations in environmental conditions or catastrophic events.
	BIO1.ETS2.1 Obtain, evaluate, and communicate information on how molecular biotechnology may be used in a variety of fields.
	BIO1.LS4.3 Identify ecosystem services and assess the role of biodiversity in support of these services. Analyze the role human activities have on disruption of these services.

Biodiversity and Taxonomy	**BIO1.LS4.3** Identify ecosystem services and assess the role of biodiversity in support of these services. Analyze the role human activities have on disruption of these services.
	EVSC.LS2.1 Using a variety of data sources, construct an explanation for the impact of climate, latitude, altitude, geology, and hydrology patterns on plant and animal life in various terrestrial biomes.
	EVSC.LS2.3 Using mathematical models, support arguments regarding the effects of biotic and abiotic factors on carrying capacity for populations within an ecosystem.
	EVSC.LS2.7 Examine stability and change within an ecosystem by using a model of succession (primary or secondary) to predict impacts of disruption on an ecosystem.
	EVSC.ESS3.4 Gather, organize, analyze, and present data on current land use trends by humans. Based on analysis, predict future trends.
	ECO.ESS3.1 Research and evaluate the effectiveness of public lands (state parks, national parks, wildlife refuges, wilderness areas) in sustaining biodiversity.
	ECO.LS4.7 Research and evaluate the effectiveness of strategies for maintenance of biodiversity.

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Term 1

Ornithology	**BIO1.LS2.1** Analyze mathematical and/or computational representations of population data that support explanations of factors that affect population size and carrying capacities of populations within an ecosystem. Examine a representative ecosystem and, based on interdependent relationships present, predict population size effects due to a given disturbance.
	BIO1.LS2.4 Analyze data demonstrating the decrease in biomass observed in each successive trophic level. Construct an explanation considering the laws of conservation of energy and matter and represent this phenomenon in a mathematical model to describe the transfer of energy and matter between trophic levels.
	EVSC.LS2.1 Using a variety of data sources, construct an explanation for the impact of climate, latitude, altitude, geology, and hydrology patterns on plant and animal life in various terrestrial biomes.
	EVSC.LS2.3 Using mathematical models, support arguments regarding the effects of biotic and abiotic factors on carrying capacity for populations within an ecosystem.
	EVSC.LS2.7 Examine stability and change within an ecosystem by using a model of succession (primary or secondary) to predict impacts of disruption on an ecosystem.
	EVSC.ESS3.4 Gather, organize, analyze, and present data on current land use trends by humans. Based on analysis, predict future trends.
	EVSC.ETS3.1 Plan and carry out an investigation of a local ecosystem to assess human impacts. Based on your findings, design and evaluate a solution to minimize impacts.

Wilderness Survival and First Aid	Survival Preparedness
	Field Methods
	Orienteering
	Emergency First Aid

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Term 2

White-Tailed Deer and Wild Turkey Management	
	BIO1.LS2.4 Analyze data demonstrating the decrease in biomass observed in each successive trophic level. Construct an explanation considering the laws of conservation of energy and matter and represent this phenomenon in a mathematical model to describe the transfer of energy and matter between trophic levels.
	EVSC.LS2.1 Using a variety of data sources, construct an explanation for the impact of climate, latitude, altitude, geology, and hydrology patterns on plant and animal life in various terrestrial biomes.
	EVSC.LS2.3 Using mathematical models, support arguments regarding the effects of biotic and abiotic factors on carrying capacity for populations within an ecosystem.
	EVSC.LS2.7 Examine stability and change within an ecosystem by using a model of succession (primary or secondary) to predict impacts of disruption on an ecosystem.
	BIO1.LS4.3 Identify ecosystem services and assess the role of biodiversity in support of these services. Analyze the role human activities have on disruption of these services.
	EVSC.ESS3.4 Gather, organize, analyze, and present data on current land use trends by humans. Based on analysis, predict future trends.
	EVSC.ETS3.1 Plan and carry out an investigation of a local ecosystem to assess human impacts. Based on your findings, design and evaluate a solution to minimize impacts.

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Term 2

Herpetology	**BIO1.LS2.4** Analyze data demonstrating the decrease in biomass observed in each successive trophic level. Construct an explanation considering the laws of conservation of energy and matter and represent this phenomenon in a mathematical model to describe the transfer of energy and matter between trophic levels.
	EVSC.LS2.1 Using a variety of data sources, construct an explanation for the impact of climate, latitude, altitude, geology, and hydrology patterns on plant and animal life in various terrestrial biomes.
	EVSC.LS2.3 Using mathematical models, support arguments regarding the effects of biotic and abiotic factors on carrying capacity for populations within an ecosystem.
	EVSC.LS2.7 Examine stability and change within an ecosystem by using a model of succession (primary or secondary) to predict impacts of disruption on an ecosystem.
	BIO1.LS4.3 Identify ecosystem services and assess the role of biodiversity in support of these services. Analyze the role human activities have on disruption of these services.
	EVSC.ESS3.4 Gather, organize, analyze, and present data on current land use trends by humans. Based on analysis, predict future trends.
	EVSC.ETS3.1 Plan and carry out an investigation of a local ecosystem to assess human impacts. Based on your findings, design and evaluate a solution to minimize impacts.

Water Quality	**BIO1.LS4.3** Identify ecosystem services and assess the role of biodiversity in support of these services. Analyze the role human activities have on disruption of these services.
	BIO1.ETS2.1 Obtain, evaluate, and communicate information on how molecular biotechnology may be used in a variety of fields.
	EVSC.LS2.1 Using a variety of data sources, construct an explanation for the impact of climate, latitude, altitude, geology, and hydrology patterns on plant and animal life in various terrestrial biomes.
	EVSC.LS2.3 Using mathematical models, support arguments regarding the effects of biotic and abiotic factors on carrying capacity for populations within an ecosystem.
	EVSC.ESS3.4 Gather, organize, analyze, and present data on current land use trends by humans. Based on analysis, predict future trends.
	ECO.ESS3.1 Research and evaluate the effectiveness of public lands (state parks, national parks, wildlife refuges, wilderness areas) in sustaining biodiversity.
	EVSC.ETS3.1 Plan and carry out an investigation of a local ecosystem to assess human impacts. Based on your findings, design and evaluate a solution to minimize impacts.

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Term 2

Field Techniques: Capturing, Marking, and Handling Wildlife	Local Wildlife Control and Rehabilitation
	Wildlife Control visit
	UTK Vet visit
	Traps