UCONN BIOLOGY ECE 1108

**Unit VII Exam Study Guide**

**Ch. 51(Animal Behavior)**

* Proximate and Ultimate Causes of Behavior
* Fixed Action Patterns
* Taxis & Kinesis
* Habituation
* Classical Conditioning, Operant Conditioning
* Imprinting
* Optimal Foraging
* Evolution & Behavior
* Mating relationships(polygamous, polyandrous, monogamous)
* Innate vs Learned Behaviors
* Altruistic Behavior

**Ch. 52(Introduction to Ecology)**

* What is Ecology
* Ecosystem, Community, Population, Individual
* Biotic vs Abiotic Factors
* Water, Temperature
* Predation, Competition
* Turnover
* Seasons
* Air circulation, Precipitation patterns
* Ocean Currents
* Aquatic Zones(abyssal, photic, intertidal)
* Biomes, Climate
* Oligotrophic Lakes vs Eutrophic Lakes

**Ch. 53(Population Ecology)**

* Population Density
* Dispersal Patterns
* Carrying Capacity
* Demography
* Birth rate vs Death rate
* Logistic Growth vs Exponential Growth
* J curve, S-Curve
* N , K
* Allee Effect
* Density Dependent vs Density Independent factors
* Ecological Footprint

**Ch. 54(Community Ecology)**

* Competitive Exclusion
* Niche(realized vs ideal)
* Competition(-/-)
* Predation & Herbivory(+/-)
* Symbiosis(mutualism(+/+), parasitism(+/-), commensalism(+/o))
* Batesian vs Meulerian mimicry
* Cryptic Coloration
* Character Displacement, Resource Partitioning
* Species Richness
* Trophic Levels
* Dominant Species, Keystone Species
* Invasive Species
* Non-Equilibrium Model
* Intermediate Disturbance Hypothesis

**Ch. 55(Ecosystems)**

* Matter & Energy Flow
* Producers, Primary Consumers, Secondary Consumers, Tertiary Consumers, and Decomposers
* Produces, Consumers, Autotrophs, Heterotrophs
* Primary Productivity, Secondary Productivity
* Energy Transfer(efficiency)
* Energy Pyramid
* Biomass
* Bio magnification(toxins)
* Chemical Cycling(water, nitrogen, phosphorus, carbon)
* Global Warming, Ozone Depletion

**Ch. 56(Conservation Biology)**

* Extinction
* Genetic Diversity, Species Diversity, Ecosystem Diversity
* Endangered Species, Threatened Species
* Problems with Introduced Species
* Extinction Vortex
* Minimum Viable Population
* Movement Corridors
* Nature Reserves
* Bioremediation
* Biological Augmentation
* Biophilia