

*Appendix

Core and Elective Courses in Biological Sciences

The objective of this core course area is to ensure that students are familiar with the diversity and functioning of organisms and the interactions among species and between organisms and the environment. Because the environmental sciences focus on the relationships between living organisms and their environment, the basic principles of ecology and a solid understanding of ecosystems structure and function is the focus of the ESGP core. This understanding can be gained through coursework that focuses on a particular taxon or a particular kind of ecosystem, but must be broadly applicable to any environment.

Environment and Natural Resources

ENR 5225	Ecosystems Modeling	3 credits	
ENR 5250.01 and 5250.02	Wetland Ecology Restoration and Wetland Field Laboratory	4 credits	AU
ENR 5263	Biology of Soil Ecosystems	3 credits	SP

Evolution, Ecology and Organismal Biology

EEOB 5470	Community and Ecosystem Ecology	3 credits	SP
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Horticulture and Crop Science

HCS 5602	The Ecology of Agriculture	3 credits	AU
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Core and Elective Courses in Physical Sciences

The objective of this core area is to provide an understanding of physical structure and processes in which ecosystems must function. Physical structure includes soil, water, air, geological media, climate, nutrients, and contaminants. Physical science processes include movement of “abiotic” matter and energy through ecosystems. Core courses must (1) study fundamental physical, hydrological, chemical, or biogeochemical processes and (2) study and emphasize the effects of physical structure and processes on ecosystem biotic components and function and the interactions between the biotic and abiotic components of the ecosystem.

Environment and Natural Resources

ENR 5222/FABENG 5310/ENVENG 5310	Ecological Engineering and Science	4 credits	SP
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Food, Agriculture and Biological Engineering

FABENG 5310/ENR 5222/ENVENG 5180	Ecological Engineering and Science	4 credits	SP
FABENG 5320	Agroecosystems	3 credits	SP

Earth Science

EARTHSCI 5651	Hydrogeology	4 credits	AU
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Core and Elective Courses in Social Sciences and Policy

The objective of the social science core is to provide an understanding of concepts related to the study of human society and/or individuals and their relationships to the structure and function of the ecosystem(s) of which they are a part. Methodology includes a range of approaches, both qualitative and quantitative. Core social science courses must engage social science in a combined theoretical and/or applied study of a physical, cultural, regulatory, or economic relationship between humans and the natural and physical environment.

Environment and Natural Resources

ENR 8350	Ecosystem Management Policy	3 credits	AU
RURLSOC 5530	Sociology of Agriculture and Food Systems	3 credits	AU
RURLSOC 7560	Environmental Sociology	3 credits	SP

Agricultural, Environmental and Developmental Economics City

AED 5330	Benefit-Cost Analysis	3 credits	AU
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and Regional Planning

CRPLAN 6410	Planning for Sustainable Development	3 credits	AU
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