

UFMDP Student Learning Outcomes	
Competency Area	Learning Outcome/Skill
Social Science Learning Outcomes	
Semester I	
Development Approaches	1. Identify the major approaches and theories to development, and define their implications for practical design and implementation in development
	2. Identify and formulate critiques of development approaches and theories. Identify alternative theories and concepts of development in their historical context
Economics, markets and institutions	3. Distinguish between different patterns of national development, and examine and explain issues of persistent inequality within a historical and political economy perspective
Semester II	
Economics, markets and institutions	4. Understand the relationships between economic growth, resource sustainability, and livelihood strategies, and their implications for poverty reduction
	5. Recognize the diversity and complexity of social and cultural contexts, institutions, structures and norms and their role in determining development outcomes
	6. Apply the principles of economics, both in households and firms
	7. Examine the consequences of market imperfections and failures for livelihood systems and environmental sustainability
Semester IV	
Policy analysis, evaluation and implementation, and governance	8. Differentiate perspectives on state capacities, bureaucracies and political realities across Africa and Latin America
	9. Explain and assess the formulation and implementation of development policies in practice
	10. Demonstrate a critical understanding of governance at different scales from the state level to community levels
	11. Recognize key concepts in human rights and migration, social justice
Biological /Natural Science Learning Outcomes	
Semester I	
Understanding the structure and functioning of ecosystems; the impact of evolutionary and ecological processes on	12. Define the evolutionary and ecological factors that shape patterns of biodiversity across spatial and temporal scales
	13. Delineate the principles of population, community, and ecosystem ecology
	14. Identify and study anthropogenic threats to ecosystem structure and functioning (climate change, deforestation, habitat fragmentation)

conservation efforts	15. Understand and apply principles of conservation biology
Semester II	
Integrating ecosystem understanding with the utilization of natural resources	16. Study and analyze the concept of “system” (in its various disciplinary versions) and how they can be applied and modeled in the natural science
Understanding the nature of social-ecological systems	17. Explain the history of agricultural systems at various scales: from the household to industrial agriculture
	18. Analyze and discuss the uses of science, engineering and technology to improve the sustainability of agricultural and other life-supporting systems
The analysis of threats and shocks to the biophysical matrix of contemporary natural and man-made systems	19. Analyze how natural resources are utilized in different contexts (e.g.: fisheries, forestry, water supplies), and interpret the impacts of climate change
	20. Find out about the development of current biotechnologies and their applications
	21. Analyze threats to natural resource utilization, such as resource depletion, degradation, and discuss restoration measures
	22. Define current trends of urbanization in developing countries, growth management policies and examine their impact on economic, environmental and socio-cultural systems
The study of innovation systems and alternative natural resource uses from a sustainability and stewardship perspective	23. Recognize the drivers of innovation and their implications for sustainable development
	24. Understand the technological and institutional dimensions and scales of innovation systems: science, technology and society
	25. Analyze alternative and sustainable technologies (e.g.: in water delivery systems, renewable energies) and their impacts upon natural resources. Recognize energy flows in natural and man-made systems
	26. Put into practice prospective studies and scenario analysis, and discuss the interface between technology and human values

Health Science Learning Outcomes	
Semester I	
Understand key global health threats	27. Demonstrate an understanding of the global burden of disease and methods for assessing it
	28. Demonstrate an understanding of the epidemiology of key infectious diseases and assess country level data, including malaria, HIV/AIDS, respiratory infections, diarrheal disease, and emerging pathogens
	29. Assess country level data for key development-related health threats including child survival, under-nutrition and maternal health
	30. Identify the risk factors for disease in a social-ecological context
	31. Define and examine the interaction between infectious and non-communicable diseases

Understand and utilize epidemiological methods	32. Understand basic epidemiological study designs
	33. Critically assess and interpret findings from epidemiological studies
	34. Identify data collection and analysis approaches to answer key questions (through class exercises and critical analysis of readings)
	35. Formulate and conduct basic epidemiological quantitative analyses to compare continuous and discrete health outcomes
	36. Differentiate and compare the role of qualitative and quantitative methods in assessing health status and problems
Characterizing the contribution of social, economic and environmental factors to health	37. Apply methods for assessing the socio-economic determinants of health
	38. Identify and understand the contribution of cultural aspects to health-related behavior
	39. Identify environmental exposures and understand methods for assessing them
	40. Understand how the utilization of natural resources can contribute to patterns of infectious and non-communicable disease
	41. Understand the effects of resource scarcity on health behaviors and the accessibility, availability, and delivery of public health services
	42. Understand the links between human and animal epidemiology including zoonotic illness and infectious disease
	43. Understand and apply the principles of health impact assessment of development projects
Identification and critical assessment of alternative health interventions	44. Understand analytical approaches for assessing policies and interventions, including RCTs, meta-analyses, impact evaluation
	45. Critically assess the advantages and disadvantages of alternative interventions for specific local contexts, including effectiveness, feasibility, and appropriateness
	46. Assess disease control strategies based on the social-ecological model and evidence-based assessment of effectiveness
Semester II	
Understand and design disease control programs to address district-level public health problems	47. Apply project management skills to the planning of health programs
	48. Develop and critically assess logical frameworks for health program
	49. Develop a monitoring and evaluation plan for a health program
	50. Develop and critically assess strategies for sustaining and scaling a health program
	51. Identify effective and appropriate techniques used in community health education and communication
	52. Ability to incorporate ethical standards of practice as the basis for all interactions with organizations, communities, and individuals
	53. Participate with stakeholders in identifying key values and a shared vision as guiding principles for community health action
	54. Characterize the structure of healthcare delivery systems and their impact on health outcomes

Understand the structure of the health sector and its relation to other development sectors	54. Characterize the structure of healthcare delivery systems and their impact on health outcomes
	55. Understand common challenges and debates within the health sector, including disparities in access, user fees and subsidies
	56. Understand and assess the relationship between health and other sectors including education and agriculture
Policy development and advocacy	57. Understand and apply methods for assessing the policy environment for health problems
	58. Identify and critically assess alternative policy strategies for addressing specific public health threats
	59. Understand and apply the principles of policy advocacy and communication for addressing health problems

Management Learning Outcomes	
Semester I	
Relationship building and maintenance, communication, facilitation and collaboration	60. Practice facilitative leadership and working in teams
	61. Practice effective listening
	62. Communicate with and among diverse stakeholders
	63. Manage cross-cultural communication
	64. Design adult/experiential learning
	65. Manage public deliberation processes, group dynamics and decision-making
	66. Prepare and perform participatory project planning, including problem analyses, logical frameworks, work plans and performance reporting matrices
Semester II and during Summer Field Practicum	
Personal well-being: Skills and Management	67. Effectively utilize time management and prioritization
	68. Ensure personal and team safety
	69. Organize field logistics including vehicle/asset management
	70. Demonstrate basic techniques on first aid
Organizational Management, Bureaucracy and Capacity Building	71. Manage change and encouraging innovation
	72. Assess financial statements and planning budgets
	73. Develop an understanding how organizations at various levels work
	74. Perform stakeholder and power analysis, including understanding donor / player landscapes
	75. Carry out a needs assessment
	76. Apply negotiation and conflict management skills
Conceptualization, Planning and Implementation of projects	77. Formulate social learning processes and learning systems (e.g. scientific process, adaptive management)
	78. Implement projects, including position descriptions, activity and progress reporting, team management processes

Semester III	
Conceptualization, Planning and Implementation of projects	79. Write inception, progress and final reports
	80. Develop integrative metrics for tracking performance in achieving sustainable development
Participatory Rural Appraisal /Action Research	81. Visualization and presentation of data to communities / stakeholders

Cross Cutting Learning Outcomes	
Data collection, analysis and interpretation	82. Understand techniques for qualitative and quantitative data collection
	83. Develop a basic understanding of modeling
	84. Perform basic qualitative data analysis
	85. Apply a critical understanding and assessment of qualitative and quantitative data research findings
Management & skills	86. Develop and apply learning contracts
	87. Apply experiential learning techniques
Education	88. Apply participatory extension techniques
	89. Apply techniques for multi-stakeholder learning and collaboration
GIS	90. Interpret maps, images and GIS analysis