AMENDED ZIMCHE APPROVED REGULATIONS FOR MScNME ALIGNED TO MBKS WITH A COURSE SYNOPSIS 2020

ZIMBABWE COUNCIL FOR HIGHER EDUCATION

ZIMCHE
Quality Assurance in Higher Education

21 J.M. Nkomo Road Hatfield
Box H100
Hatfield, Harare, Zimbabwe
Phone: 263-4-571163/5, 581993 / 581997
Fax: +263-4-581995
Website: http//www.zimche.ac.zw
E-mail: info@zimche.ac.zw

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF SCIENCE AND ENGINEERING

MASTERS OF SCIENCE DEGREE IN IN NATURAL RESOURCES MANAGEMENT AND ENVIRONMENTAL SUSTAINABILITY (MScNME)
AUGUST 2020

Name of Programme	**Master of Science Degree in Natural Resources Management and Environmental Sustainability (MScNME)**
Duration	*$1^1/_2$ years (18 Months)*
Minimum Credit Load	*306*
Maximum Credit Load	*360*
Maximum MBK/S Credit Load	234
ZNQF Level	*9*

Entry Requirements :	Tick
Normal Entry: *An Honours Degree in the following areas of study: Disaster Management, Development Studies, Geography, Biology, Environmental Studies, Agriculture, Social Sciences or any relevant degree with a strong geography background, with degree class 2.2 or better.*	√
Special Entry: *Applicants without an Honours Degree or with passes lower than 2.2 may be considered for the programme if they have at least two years relevant experience.*	√
Mature Entry: *Applicants should be 25years and above and have passed Ordinary Level English and Mathematics. Two or more years of working experience in a related field is a must.*	√
Other (indicate)	

LEARNING OUTCOMES: At the end of the programme students should be able to:
1. *Utilize skills gained in a wide range of sectors that require environmental management knowledge and skills which will enhance their employability*

2. *Demonstrate knowledge and new approaches to sustainable environmental management which will enhance their performance in the ever-changing impact of development on the environment*
3. *Demonstrate knowledge and skills to take up higher-level responsibilities as they critically evaluate and apply relevant tools of environmental management, impact mitigation, monitoring and ability to conduct impact assessments.*
4. *Demonstrate knowledge on management measures used locally, regionally and internationally to enhance sustainable environmental utilisation*
5. *Pursue PhD studies.*
Etc. in that order

Programme Assessment (Describe and indicate percentage [%])	
Coursework	*This carries a minimum weighting of **40%** (Assignments 15% and presentation 15% and fieldwork 10%)*
By thesis	*Coursework not exceeding 25%. The Board of Examiners shall examine the candidate orally, exceptionally, if an oral examination is impracticable, a written examination. The Board of Examiners may require further examination through written papers, on subjects relevant thereto.*
Written Examinations	*A final examination is written with a minimum weighting of **60%**.*
Other	*The taught courses will carry a weighting of 60% of the programme while the dissertation carries a weighting of 40%. The Departmental Board of Examiners shall agree upon the final grade to be given for every module that a student has taken, or been credited with. The final grade in the module shall be based on the marks obtained in the final examination and on course work and the thesis assessed.*

Basis of Allocating Credits		
Activity	**Time in Hours**	**Credits**
Contact Time/Time on task	**48**	**4.8**
Lectures	24	2.4
Tutorials	12	1.2
Field Visits	4	0.4
Laboratory Work	4	0.4
Workshops	4	0.4
Work Integrated Learning (WIL)/Industrial Attachment/Clinical Practice/Teaching Practice etc.		
Scheduled Assessment Time	**48**	**4.8**

Final written examinations	3	0.3
In-class tests	3	0.3
Online Testing and Examinations	22	2.2
Seminar Presentations	20	2.0
Independent Study Time	**84**	**8.4**
Preparation for scheduled sessions	40	4.0
Reading	13	1.3
Written assignments	13	1.3
Revision Work	18	1.8
Maximum Credits for the 80% Courses /Modules Threshold	**180**	**18**

Determination of Results

Award of Degree

In order to be awarded the degree, students must pass, or be credited with all modules designated as core (8 courses), plus 4 other modules (making a total of 12 modules), and the dissertation, giving a minimum of 306 credits.

Calculation of Final Mark

The final mark shall be **an aggregate of credits from twelve (12) taught modules (including all core courses)** plus the Dissertation. The twelve taught modules shall include eight core modules and the four elective modules which give the student the final mark. The taught modules shall carry a weighting of 60% and the dissertation 40% of the programme.

Summary of Modules arranged in logical sequence and allocation of Notional Hours and Credits				
Level One				
Semester 1				
Code	**Module Name**	**Core**	**Credits**	**Notional Hrs**
MG501	Population & Natural Resource Sustainability	Y	18	180
MG503	Environmental Impact Assessment	y	18	180
MG505	Environnemental Policy	Y	18	180
MG506	Land Degradation and Rural Sustainability	Y	18	180
MG508	Integrated Water Resource Management		18	180
MG502	Rural Environmental Planning		18	180
	Semester 2			
MG512	Research Methods & Statistical Techniques	Y	18	180
MG504	Environmental Economics		18	180

MG509	Environmental Remote Sensing/GIS	Y	18	180
MG507	Biodiversity & Environmental Sustainability	Y	18	180
MG513	Climate Change	Y	18	180
MG555	Environmental Education		18	180
	Level Two			
	Semester 1			
MG600	Dissertation	Y	90	900

MODULE SYNOPSES (For all the 80% Modules Threshold. **NB:** Synopses are very central in that these are summaries of the key concepts to be taught in each module.	
MODULE	**SYNOPSIS**
MG501: POPULATION AND NATURAL RESOURCE SUSTAINABILITY	*This course takes a multidisciplinary look at the complex and contentious relation between population and natural resource use. Thomas Malthus predicted that population growth will always increase more quickly than food production so that the size of population will inevitably increase until it is checked by mass starvation, war and disease. During the 20th century the predictions for the grim Malthusian predictions of mass starvation were fulfilled in certain parts of the world. However it was not the issue of population growth outstripping food production but other factors came into play. The twentieth century experienced a phenomenal population growth which to date is about 7billion. This gigantic population growth continues to create unprecedented demand for more food, minerals, wood products, freshwater and energy. Meeting these demands in turn is causing unprecedented stress on the environment with effects ranging from habitat loss, industrial pollution, global warming and other forms of environmental degradation. What factors explain the ability of food production to outstrip population growth in recent past? Will population growth finally outstrip carrying capacity of the earth? What are the environmental impacts of population growth? To what extent are minerals or any other natural resources in danger of depletion? What role does the presumptuous consumption of natural resources in DCs play in the overexploitation of natural resources? Critical global issues such as threats to natural resources, environmental degradation, democratic control and management of natural resources within countries, natural resource depletion, pollution and the role of technology are all implicate in the persistent and often explosive debates.*
MG 502: Rural Environmental Planning	*Sustainable development is hitched on proper planning from grassroots level. Rural areas are the target for both the good and bad contacts of human beings with the environment. The coupled human-environment relationship necessitate planning. The course is therefore to offer help to students to realize the value of their environment in supporting their livelihoods.*

MG503: Environmental Impact Assessment	*The course provides the theory and methodology for environmental impact assessment. It deals with the EIA process, impact mitigation, monitoring, audit and Strategic Impact assess. The tools of assessment impact of project are tackled to equip the candidates with the full package for the impact of projects on the environment.*
MG504: Environmental Economics	*The environment is the resource base that sustains life. The exploitation of the base has led to environmental problems that cause headache to resource use planners and users alike. In the processes of production, distribution, substitution, consumption and exchange of goods and services, today's community has to contend with the problem of resource scarcity. This course tackles the concepts, models and approaches of dealing with environmental problems, the logic and operation of the market mechanism in resource use and the need for sustainable resource use amid competing demands.*
MG505:Environmental Policy	*The module enables students to explain the concepts that relate to environmental policy in natural resource management and environmental sustainability. They will describe the nature and scope of environmental policy, the key policy principles and formulate policy statements for particular environmental problems. Students will identify and access policy tools for dealing with environmental problems in different contexts and evaluate the effectiveness of environmental policies as tools in resource management*
MG 506: Land Degradation and Rural Sustainability	*Land degradation threatens the sustainability of rural livelihoods including any member of the world's poorest population. It also has adverse effects on processes of global significance, including climate change, biodiversity, trade, international waters, environmental quality, conflicts, disasters and others. This course integrates scientific understanding of land use and land degradation with relevant socio-economic and political aspects to provide an integrated approach to sustainable management of land resources. It analyses the relevance of the combined SRLF and the CHES conceptual frameworks in assessing the rural livelihoods sustainability in the face of the agents of land degradation.*
MG507: Biodiversity and Environmental Sustainability	*Sustainable development is increasingly becoming a sought after concept as evidenced by the post-2015 development agenda, which fully embraces the philosophy of sustainability. However, the need to balance environmental sustainability with economic and social goals continues to be a vexing issue. The growing human pressure on ecosystems is blamed for biodiversity loss and is a key driver of unsustainability. In this course, students learn about biodiversity conservation as a key component of environmental sustainability. This discourse is framed within the current understanding of population pressure on the environment. By drawing heavily from the Zimbabwean case, students learn about the key drivers of unsustainability; which are evident in environmental pollution, biodiversity loss, siltation of water bodies, urban agriculture and wetland*

	disturbances, among a deluge of other factors. The global climate change is also cited both as a threat to biodiversity and environmental sustainability. By adopting an ecosystems perspective, students are expected to understand the multi-faceted nature of the environment and the sensitivity of this balance. The policy framework for biodiversity and/or environmental management is also exposited through a review of relevant national and international policy and institutional regimes.
MG 508: Integrated Water Resources Management	*This course examines the importance of an integrated approach in water resource management in view of the interlinkages between water and other environmental systems. An assessment of the state of the water resource at different times and scale is done leading to the justification to allow for sustainable of the various approaches to water resource management strategies. The need for sustainable water resource planning, use, and management is highlighted development. This is against the backdrop of unsustainable management strategies that characterize the water resource in the past. Students will benefit a great deal.*
MG509: Environmental Remote Sensing/GIS	*The course aims at equipping students with relevant knowledge and practical skills, which are indispensable in natural resource management and environmental sustainability issues. The course incorporates two disciplines, GIS and RS. Further the course builds on a prerequisite foundation for interpretation of remotely sensed imagery and GIS data. The course equips students with skills to use a map as an indispensable geographical tool in natural resources management and environmental sustainability.*
MG555: Environmental Education	*Sustainable development (SD) is increasingly becoming a sought after concept shaping environmental management and development objectives at various spatial levels: local, national and global. As a concept, SD sets a development path whose benefits should be realized by both present and future generations, i.e., intra-generational and intergenerational benefits. In order to realize this, the environment, which is both a warehouse and sink of economic and social products and services, is given much attention. Discourse characterizing this module stems from the growing recognition that environmental concerns are closely linked to development theory and practice. Thus, the course critically examines the role of environmental education as a tool of SD.*
MG 512: Research Methods and Statistical Techniques	*The course is set to promote research abilities among the students. It focuses on developing students' abilities in analyzing the different research types such as qualitative and quantitative. Students will be able to design their research proposals which culminate in the carrying out of a research ptproject. The student will b exposed to descriptive and inferential statistics as the set to justify their hypothesis. Chi square tests, student's T-test, regression analysis, analysis of variance, correlation and other statistical terms will be explained and calculated.*

MG513 Climate Change	*Upon the completion of this course, students should be able to describe how the Earth's climate system works and summarize the general atmospheric circulation patterns, ocean circulation patterns and climate oscillations such as el nino Southern Oscillation. Students should be able to illustrate components of the earth's carbon cycle and quantitatively describe how addition of CO_2 to atmosphere through the burning of fossil fuels will influence the climate to change. Importantly students will gain the scientific basis to analyze and critique policy issues related to global warming.*
MG 600: Dissertation	*This is a research project which helps student identify problems and seek solutions scientifically.*

THE END