Level III Geography Courses
Department of Geography and Geology
The University of the West Indies, Mona Campus

Tel: 876-927-2728 or 876-927-2129       Fax: 876-977-6029
Email: geoggeol@uwimona.edu.jm
COURSE TITLE: TROPICAL AGRICULTURE AND DEVELOPMENT  
COURSE CODE: GEOG3131  
CREDITS: 3  
LEVEL: III  
SEMESTER: 1  
PREREQUISITE: GEOG2132 (GEOGRAPHIES OF DEVELOPMENT)  

RATIONALE  
This course provides a theoretical and empirical foundation for students who wish to pursue careers in rural physical planning, sustainable agriculture development or food security resource management. The course develops essential practical skills in collecting, analyzing and interpreting data from surveys of small-scale farmers, in collaborative team work, and in field project writing. The focus on the dynamics of change in tropical agricultural systems and on Caribbean research provides a foundation for students who wish to undertake postgraduate studies in farming systems, rural sustainable livelihoods, or the impact of climate change and trade liberalization on domestic food production and export agriculture.

COURSE DESCRIPTION  
This course seeks to identify and explain the critical processes that drive changes in tropical agricultural systems and to analyze the implications for sustainable agricultural development. At the global level, the impact of globalization, trade liberalization and climate change are examined while, at the national level, key issues examined relate to demographic change, land use patterns and environmental degradation. At the local level, the focus is on how small farmers manage their limited resources and how communities cope with and adapt to the impacts of globalization and climate change. The course covers traditional theoretical approaches to agricultural geography such as decision-making models and innovation diffusion, and contemporary research themes such as double exposure, alternative trade networks, and indigenous technical knowledge. Examples are drawn from throughout the tropical world but special emphasis is placed on the Caribbean in general and Jamaican in particular using case studies of export agriculture and domestic food production.

LEARNING OUTCOMES  
On successful completion of this course students should be able to:  
• Analyze and discuss the impacts of globalization, trade liberalization and climate change on tropical agricultural systems.  
• Evaluate relevant theories, models, concepts, and contemporary ideas used by geographers to explain how tropical agricultural systems adapt to global change  
• Contrast theoretical and empirical approaches to understanding small farmers’ perceptions and decision-making behaviour in relation to the management of land resources and household assets.  
• Examine the historical and contemporary features of land use patterns in the dual agricultural economy of developing countries.
• Identify and evaluate those aspects of indigenous knowledge in rural farming communities that contribute actually and potentially to low-external-input-sustainable-agriculture (LEISA) and sustainable community development.

• Assess the advantages and disadvantages of techniques that can be used to protect watersheds against environmental degradation in hillside farming areas in the tropics.

Students will also be exposed to a number of practical and transferable skills, as follows:

• Conduct a detailed questionnaire survey of small farmers in a rural community.
• Compile, collate, summarize and analyze primary data collected using a questionnaire survey.
• Write a structured field report based on the analysis and interpretation of primary data
• Work effectively in a team, by collaborative field work under tropical conditions, and organize group meetings to share data and ideas.

COURSE CONTENT

1. Global Change: impacts of trade liberalization and climate change on export agriculture and domestic food production – includes case studies.
3. Economic and behavioural approaches to decision making among small-scale farmers in developing countries – includes approaches to risk reduction.
4. The role of indigenous knowledge in traditional agriculture – includes case studies based on Jamaican research.
5. Sustainable rural livelihoods and sustainable hillside farming – includes approaches to soil conservation and land management in hillside farming systems.

METHODS OF DELIVERY

The course will be delivered by means of 24 interactive, multimedia presentations in modern agricultural geography. One session involves a role-playing simulation game. A central part of the course is a field weekend (two-nights at for e.g. The UWI Marine Laboratory at Discovery Bay) designed to collect primary field data related to topics covered in lectures. The weekend consists of 18 contact hours. Six tutorial sessions will provide technical support for the field project, support and preparation for the written examination. Course material including key journal articles will be made available in the Department reading Room and electronically via OURVLE at http://ourvle.mona.uwi.edu/. This will include multimedia presentations/lecture notes, scientific articles, links to scientific articles on websites, and websites.

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<th>Contact Hours</th>
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<tbody>
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<td>Lectures</td>
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METHODS OF ASSESSMENT

The 2-hour written paper will examine students’ grasp of key concepts through two in-depth essay questions. The coursework test consists of short questions to examine student’s knowledge of the material covered in lectures. The field project will examine students’ ability to collect, analyze and interpret data using a questionnaire survey of small farmers.

<table>
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<tr>
<th>Component</th>
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<tr>
<td>One 2-hour written examination</td>
<td>50%</td>
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<tr>
<td>Coursework:</td>
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<tr>
<td>Field project report</td>
<td>25%</td>
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<td>One 1-hour in-course test</td>
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HIGHLY RECOMMENDED REFERENCES


USEFUL WEBSITES

http://www.fairtrade.org.uk
www.ipgri.cgiar.org
http://www.fao.org/landandwater/agll/glasod/glasodmaps.jsp
www.iss.nl/ikdm/ikdm/ikdm/index.html
COURSE TITLE: TOURISM PLANNING AND DEVELOPMENT
COURSE CODE: GEOG3132
CREDITS: 3
LEVEL: III
SEMESTER: 2
PREREQUISITE: GEOG2131 (URBAN GEOGRAPHIES)
    OR,
    GEOG2132 (GEOGRAPHIES OF DEVELOPMENT

COURSE RATIONALE

In the Caribbean, as well as many other regions of the Global South, tourism is intricately interwoven into the social, economic and political character of national and local space. Trends in the industry suggest that change is explicitly spatial in many regards and in order to understand contemporary issues in tourism it is necessary to situate these within the historical growth of the industry and within changing approaches to planning for recreation and travel. One of the key goals of Geography is to explore spatial relationships; processes that link people and places; and the contested nature of many of these systems of connection. This course provides a unique opportunity to contextualize the experiences of tourism, while examining changing concepts of tourism.

COURSE DESCRIPTION

This course is intended to introduce students to various aspects of the tourism industry through theoretical and practical exploration of key issues related to development theory and planning, marketing and destination transformation. It provides a sound academic base for future pursuits in tourism and development planning, cultural geography and environmental management. The course entails a theoretical and practical exploration of tourism across the globe. Particular emphasis is placed on the experiences of the Caribbean and by extension the Global South. Through the use of case studies pivoted on themes including vulnerability, change, culture and development, it will provide insight into key features of spatial and temporal processes within the industry.

LEARNING OUTCOMES

On the successful completion of this course, students should be able to:

- Explain the concepts of tourism, leisure and recreation.
- Explain the practices which lead to specific tourist movements and developments
- Explain the major challenges facing the industry and attempt to explore multi-scale variations in such challenges across the globe.
- Analyse the impact the industry has had on the physical, economic and social environment through the exploration of key concepts such as carrying capacity, empowerment, participation and exclusion.
- Examine the influence of social-political and economic landscapes on the development of tourism.
• Explain the main components and scales of tourism development planning and critically analyze the tourism planning process.
• Examine the utility and principles of Environmental Impact Assessments as it relates to the tourism industry.
• Critically assess the current state of connections between agriculture and tourism in the Caribbean.

COURSE CONTENT

Introduction to Tourism Geography: the spatial and temporal character of tourism, the main challenges associated with collecting and interpreting tourism data and the connection between tourism and geography.

Defining Tourism: Recreation, Place and Leisure: an overview of recreation and leisure.

Mobility, Globalisation and Tourism: the connections between globalisation, mobility and tourism.

Selling Tourism and Selling Place: The Growth of Mass Tourism: an overview of the global growth of mass tourism and an explanation of the main factors facilitating growth.

Urban Tourism: analysis of the urban tourism system including a classification of the main elements and its role in urban renewal.

Tourism and Development Theory: the evolution of development theory and a critical analysis of tourism as a development options.

Sustainable Tourism: the goals, principles and practice of sustainable tourism including its emergence from the concept sustainable development.

Ecotourism: examination of the characteristics of ecotourism and a critical assessment of selected case studies.

Scaling the Impacts of Tourism: Environmental, Economic and Social Dimensions: the effects of the tourism industry on social, economic and physical character of places and the importance of scale in understanding the geography of impact.

Carrying Capacity and the Caribbean Experience: a critical analysis an analytical framework for analysing the balance between resource use and sustainability in the Caribbean tourism.

The Tourism Planning Process: changing approaches to tourism planning as well the main aspects on the planning process.

Empowerment and Participation in the Tourism Industry: local community and other stakeholder participation into the tourism network.
Contestation, Exclusion and the Creation of a Tourist Space: an advanced insight into the contested nature of tourism developments and the ways that socio-political factors render some tourist spaces as zones of exclusion and marginalisation.

Environmental Impact Assessment Environmental Certification and Standards in Tourism: introduction to components, goals and challenges associated with conducting an Environmental Impact Assessment. The role of certification programmes as measures of sustainability in tourist development practices.

Zooming in on Inter-Sectorial Connection: the nature and outcomes of connections between the agriculture and tourism sector with specific emphasis on the experiences of Jamaica.

Selling More than Sun and Sand: Sex Tourism: the role sex tourism plays in shaping social and economic landscapes and, by extension, the identity of places.

Vulnerability and Tourism: the concept of vulnerability from multiple perspectives including the vulnerability of the tourism industry to external shocks, natural hazards, the impact of crime and health related challenges.

METHODS OF DELIVERY

This course will be delivered through a combination of 24 hours of interactive lectures, 6 hours of tutorials to compliment and further develop topics covered in the lectures. During the tutorials, students will also be required to make a presentation in small groups. There will also be a discussion following each presentation. The fieldtrip will expose students to the practical and field aspects of the course, through field observations, data collection, compilation and analysis, and team skills. The field trip project is also designed to further advance their critical thinking skills and equip students with the key knowledge as it relates to the preparation of tourism development plans. Course material will be made available electronically via OURVLE at http://ourvle.mona.uwi.edu/. This will include PowerPoint presentations/lecture notes, scientific articles, links to scientific articles on websites, and websites.

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<td>Lectures:</td>
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<td>Tutorials:</td>
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<td>1-day field trip:</td>
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METHODS OF ASSESSMENT

A 2-hour written paper will test the degree to which students have grasped the concepts of the course through two structured essay-type answers. The tutorial assignment is designed to further develop and hone their writing skills, through a detailed, well referenced and critical examination of a topic related to a Caribbean social, economic or environmental problem. The Mid-Semester Test will be a short and extended answer paper to test the key concepts covered in the first six weeks of the course. It is critical that students gain practical experience in transforming
development ideas to development plans and as such the field project report will assess students’ ability to outline various aspects of a tourism development plan for a selected area. Students will be assessed on their ability to construct a reasoned plan which pays critical attention to key components and the way that different components may interact to determine the outcome of plans. Additionally, it will gage awareness of issues such as scales and the varied role of institutional capacity and intervention in the development process.

One 2-hour written examination: 50%
Coursework:
   One 1-hour in-course test 20%
   Tourism development plan 20%
   Multimedia presentation 5%
   Tutorial essay 5%
Total 100%

REFERENCES

(a) PRESCRIBED


(b) HIGHLY RECOMMENDED


(c) RECOMMENDED


(d) USEFUL WEBSITES

[www.world-tourism.org](http://www.world-tourism.org)
- General tourism information

- Statistics and information on Caribbean tourism

- Sustainability and certification standards in the industry

[http://pub.unwto.org/WebRoot/Store/Shops/Infoshop/Products/1015/1015-1.pdf](http://pub.unwto.org/WebRoot/Store/Shops/Infoshop/Products/1015/1015-1.pdf)
- National and Regional Tourism Planning

- Sustainable Tourism
COURSE TITLE: CAPSTONE: GEOGRAPHY OF THE CARIBBEAN  
COURSE CODE: GEOG3331  
CREDITS: 3  
LEVEL: III  
SEMESTER: 2  
PREREQUISITES: Any Three from:  
- GEOG2131 (URBAN GEOGRAPHIES)  
- GEOG2132 (GEOGRAPHIES OF DEVELOPMENT)  
- GEOG2231 (EARTH SURFACE PROCESSES)  
- GEOG2232 (ENVIRONMENTAL CHANGE)  

COURSE RATIONALE  
A key component of a geography education involves an understanding of the places we inhabit and shape. Caribbean societies have a rich geography which has been etched by distinctive transformations during pre and post-colonial periods. Like many other societies of the Global South they are faced with the imposition of globalization and challenges associated with resource utilization and sustainability. Contemporary and historical patterns of development suggest that social and economic inequality is a deeply entrenched feature of Caribbean societies and this has also had implications for issues related to mobility, health, the physical environment and the social climate.

COURSE DESCRIPTION  
This course provides a unique opportunity to synthesise aspects human and physical geography within a familiar spatial context as it introduces students to various aspects of Caribbean geography. The main goal is to foster an appreciation and understanding of the uniqueness, contradictions and interactions of Caribbean social, economic and physical landscapes. In addition to providing a sound base for geographical education through the contextual application of concepts taught in other courses, it extends analytical skills and knowledge through an exploration of advanced theoretical concepts and allows students to explore and analyse national data sets. This course presents an overview of the physical, socio-economic and epidemiological aspects of the Caribbean landscape. Using a combination of case studies from selected Caribbean islands, it is intended to provide advanced understanding of Caribbean societies in a geographical context. Though thematically organised, interrelations between selected concepts and themes will be emphasised in an effort to facilitate an integrated approach to the analysis of Caribbean characteristics, problems and prospects for future growth.

LEARNING OUTCOMES  
On the successful completion of this course, students should be able to:

- Explain selected physical, social and economic features of the Caribbean Region.
- Explain the geographical underpinnings of the Caribbean environment as it relates to variations in the way that human and environmental systems interact in an intra-regional and international context.
• Critically assess the nature of tensions between resource utilisation and environmental sustainability.
• Analyze geographical aspects of morbidity, mortality and mobility in the Caribbean region.
• Apply appropriate statistical techniques to analyse key aspects of Caribbean social and economic data.

COURSE CONTENT

Introduction to Caribbean Geography
This section introduces students to the geography of the Caribbean by defining the meaning of the Caribbean as a geographical space and discussing the ways that this meaning is differentially constructed through language, identity, nature and politics. This is used to set the framework for discussion of the unique challenges and opportunities for development and regional integration.

• Defining the Caribbean
• The Caribbean as a unique space
• Wither Regional Integration

The Caribbean Environment
This section discusses the main features of the Caribbean’s physical environment and emphasises the emergent tensions between resource use and sustainability. It examines the politicisation of natural space and the contrasting effects of human-environment interactions.

• Caribbean Flora and Fauna
• Climate Change and Caribbean Species
• Waste Management
• National Parks and Protected Areas
• Environmental Organizations/Movements
• Environmental Discourse, Environmental Justice and Political Ecology

The Caribbean as a Social and Economic Space
This section involves a practical and theoretical exploration of the social and economic conditions of the Caribbean and highlights the ways that these conditions interact to produce distinct spatial outcomes. It adopts a practical approach by analysing national data sets, such as the Jamaica Survey of Living Conditions, to contextualise understanding of the main aspects of Caribbean Human Geography.

• Theoretical perspectives on Caribbean Migration
• Mobility and Development
• Geographical Aspects of Crime in the Caribbean
• Challenges and Transformations in Housing
• Social and Economic Conditions
• Stratification, Inequality and Poverty
• Double Exposure? The Caribbean in Contemporary World
Morbidity and Mortality: Geographical Dimensions of Caribbean Health

The epidemiology of Caribbean space has geographical undertones which are directly and indirectly connected to social, economic and environmental conditions. This section delves into the selected topics in the Medical Geography of the Caribbean region and examines the link between mortality, morbidity and development.

- Epidemiological Transition in the Caribbean
- Health Care Access and Utilization
- Structural and Environmental Determinants of Health
- Chronic and Degenerative Diseases
- Climate Change and Health: Dengue Fever in the Caribbean

METHODS OF DELIVERY

This course will be delivered through a combination of 24 hours of interactive lectures, 11 hours of tutorials to compliment and further develop topics covered in the lectures. During the tutorials, students will also be required to make group presentations and participate in brief exercises. The will also be an interactive tutorial discussion following each presentation. The lectures will cover the theoretical aspects of the course, while the tutorial sessions will be used to clarify and reinforce concepts. Eight hours of laboratory sessions will be used to hone quantitative and analytical skills through the use of statistical software to excavate key trends in social and economic data for analysis of material presented in the project report. The final project is designed to further advance their critical thinking skills and equip students with the key knowledge as it relates to the analysis and recommendations as it relates to selected challenges facing the Caribbean region. Course material will be made available electronically via OURVLE at http://ourvle.mona.uwi.edu/. This will include multimedia presentations/lecture notes, scientific articles, links to scientific articles on websites, and websites.

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METHODS OF ASSESSMENT

A 2-hour written paper will test the degree to which students have grasped the concepts of the course through two structured essay-type answers. The coursework project assignment is designed to further develop and hone their writing skills, through a detailed, well referenced and critical examination of a topic related to a key challenge facing the Caribbean Region; and will use the knowledge acquired from the practical classes to analyse and present the key trends in the social and economic data used in the project. The Mid-Semester Test will be a short and extended answer paper to test concepts covered in the first six weeks of the course.
One 2-hour written examination: 50%
Coursework:
  One 1-hour in-course test 20%
  Project 30%
Total 100%

REFERENCES

(a) PRESCRIBED


(b) HIGHLY RECOMMENDED


(c) RECOMMENDED

Kingston: Ian Randle Publishers Ltd.

(d) USEFUL WEBSITES

www.nepa.gov.jm
- National Environment and Planning Agency

www.jamentrust.org
- The Jamaica Environment Trust

- National Report of Trinidad and Tobago to the Convention on Biodiversity

www.ema.co.tt
- Environmental Management Authority (Trinidad and Tobago)

www.who.int/en/
- The World Health Organisation

www.paho.org
- The Pan American Health Organisation
COURSE TITLE: URBAN AND REGIONAL PLANNING
COURSE CODE: GEOG3333
CREDITS: 3
LEVEL: III
SEMESTER: 2
PREREQUISITE: GEOG2131 (URBAN GEOGRAPHIES)

RATIONALE
This course provides a solid base for students either wishing to pursue postgraduate studies or to undertake careers in urban planning. Given recent and projected trends in global urban population growth, urban planning is becoming increasingly more important as a profession, as nation states strive to optimize the use of available resources in an efficient and sustainable manner. This is particularly important in the case of developing regions like the Caribbean that are being challenged to find new and effective solutions in balancing the drive for achieving economic growth amidst growing social and environmental concerns. The course is also designed to develop practical and transferable skills such as report writing, critical thinking and problem solving that will serve as valuable assets in the world of work.

COURSE DESCRIPTION
The course covers a range of topics spanning the full breadth and length of the planning profession. The first half of the course will examine some of the basic concepts and debates underlying the field of urban and regional planning. This part of the course introduces students to the history and evolution of modern town planning, various planning theories and procedural models, land use management tools and explores the complex and dynamic linkages that exist between planning processes and development. The second half of the course entails a case study based analysis of different planning issues affecting modern-day societies such as water insecurity and sanitation, financing low-income housing, urban safety and security, the global urban energy crisis, and vulnerability to climate change. Case studies are drawn from a large number of low and middle income countries but with a special emphasis on the Caribbean.

LEARNING OUTCOMES
On the successful completion of this course students should be able to:

- Discuss the historical evolution of modern town planning.
- Describe the varied types of plans and planning strategies that exist including redevelopment plans, smart growth strategies, economic development strategic plans, site plans, and disaster preparedness plans.
- Critically assess relevant theories, models, tools and concepts used by planners.
- Analyze the complex and dynamic linkages that exist between planning processes and development.
- Evaluate the major social problems affecting urban areas in the developing world, and describe and compare methods that have been used to alleviate these challenges.
• Evaluate the major environmental problems affecting urban areas in the developing world, and describe and compare methods that have been used to alleviate these challenges.

Students will also be exposed to a number of practical and transferable skills as follows:

• Process and critically examine key and relevant literature from both print and web based sources on defined topics.
• Critically analyze information to develop reasoned arguments.
• Gather, process, analyze and communicate detailed and complex information by means of an oral presentation supported by appropriate visual and other multimedia aids.

COURSE CONTENT

Introduction to Urban & Regional Planning
Provide overview of course and introduce students to key concepts, definitions, tools and trends in modern urban planning.

History and Evolution of Planning in Britain
Traces the genesis and evolution of urban planning in Britain, and includes an assessment of the early post-war planning developments and challenges that emerged.

The Seers
Includes a critical assessment of the contributions made to modern urban planning thought and practice by pioneer thinkers such as Ebenezer Howard and Le Corbusier.

Planning in the Americas
This section examines the origin and evolution of modern urban planning in the Americas with a specific emphasis on North America and the Caribbean.

Theories of Planning
Critically examines a range of procedural approaches including blueprints/master plans, synoptic planning, incrementalism, mixed scanning and participatory planning. This section also covers new urban design movements such as New Urbanism and Smart Growth.

Water and Sanitation
Using case studies from Africa and Asia, this section looks at the challenges involved in providing water and sanitation services to a growing urban population.

Strategies for Housing the Urban Poor
Using a wide range of case studies, this section examines the challenges and opportunities in providing low-income housing solutions in the Global South.

The Global Urban Energy Crisis
Entails an in-depth analysis into the urban causes of the current global energy crisis and explores possible urban planning and design solutions.
Urban Safety and Security
This section focuses on crime and violence in selected Caribbean cities and pays keen attention to the underlying causes, impacts and attempts made to address this problem.

Adapting Cities to Climate Change
Examines the vulnerability of urban settlements to climate change impacts and the measures being implemented by different cities to mitigate and adapt to these changes.

METHODS OF DELIVERY
This course will primarily be delivered through 24 hours of interactive lectures complimented by 8 hours of tutorials designed to further develop topics covered in the lectures. During the tutorials, students will be required to make short presentations on assigned topics followed by an interactive group discussion. Students will also be given one tutorial written assignment to test their factual knowledge, and to develop their problem solving abilities and critical thinking skills. The fieldtrip will expose students to the technical and practical aspects of the course through site visits, field observation, note taking and career talks by planning professionals. Two 3-hour practical sessions will also be used to provide additional support to students in key technical areas of the course including introducing students to a number of widely used decision support systems and tools in planning.

Course material will be made available electronically. This will include multimedia presentations/lecture notes, scientific articles, links to scientific articles on websites, and other useful online resources.

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METHODS OF ASSESSMENT
A 2-hour written paper will test the degree to which students have grasped the concepts of the course through two structured essay-type answers. The written tutorial assignment is designed to further develop and hone their writing skills, through a detailed, well referenced and critical examination of a specified urban planning topic. Specifically, students will be asked to carry out a critical review of an assigned book chapter, other published planning articles or case studies. Short tutorial presentations will also be used to assess students’ ability to identify process, analyze and communicate information clearly and effectively. Students will also be required to deliver a multimedia presentation on a planning case study, working in small groups. The in-course test will be a short answer paper to test the key concepts covered in the first six weeks of the course.
One 2-hour written examination 50%

Coursework:
  One 1-hour in-course test 15%
  Written tutorial assignment 25%
  Tutorial multimedia presentation 10%

Total 100%

REFERENCES

(a) PRESCRIBED


(b) HIGHLY RECOMMENDED


McHardy, P. (2002) *Urban and Regional Planning in Jamaica*

(c) RECOMMENDED


(d) USEFUL WEBSITES

International Institute for Environment and Development (http://www.iied.org/)
Intergovernmental Panel on Climate Change (http://www.ipcc.ch/)
World Bank: Urban Poverty (www.worldbank.org/urban/poverty/)
UN Habitat: The State of the World’s Cities Report 2012 (www.unhabitat.org.)
Course website: www.caribbeansocieties.com
RATIONAL

Many less developed countries within the tropics have severe agricultural land shortages, particularly across Southeast Asia, the Indian subcontinent and most of sub-Saharan Africa. In Latin America and the Caribbean, the pressures on land are no less significant, due to the inaccessible nature of land resources of the South and Central American rainforests and the relatively restricted amount of suitable agricultural land in the Caribbean islands. Population pressure on agricultural land in the tropics is high in many areas and will become more acute over the next few decades. It is therefore essential to understand the nature of soil and land resources in the tropics and to be able to assess the capabilities and limitations of the natural climatic, geomorphologic and soil base in order to meet the growing demand for food. This is particularly important in determining sustainable development strategies for tropical lands.

COURSE DESCRIPTION

This course will focus on the use and management of the land resource in the semi-arid, the seasonal wet-dry and the humid tropics. The nature of tropical weathering and soil formation will be examined. The course will also explain why many tropical soils are susceptible to the processes of soil and geomorphologic degradation. Hazards associated with the human use of tropical soils, such as irrigation and salinization, soil erosion and slope failure, and desertification will also be discussed, as well as the consequences of deforestation for land-use. Methods of soil erosion and land degradation assessment will be examined as practical examples of monitoring, modeling and management of land-use problems. The implications changing global climates for agriculture and food security in the tropics will also be examined, as well as the nature of aid and policy scenarios for the alleviation of tropical land degradation.

LEARNING OUTCOMES

On successful completion of this course, students should be able to:

- Examine the nature of tropical weathering and soil formation.
- Examine in detail the land management problems inherent in the humid and the semi-arid tropics.
- Assess the natural and human-induced factors which may cause tropical soils to degrade.
- Determine by means of analysis whether a particular land use will be sustainable or not.
- Evaluate the potential consequences of changing environmental factors for tropical agriculture.
COURSE CONTENT

Soil Formation, Weathering Processes and Products in the Humid Tropics
An examination of the principal weathering processes that are dominant in causing the breakdown of bedrock in the tropics. Particular attention is given to the modes of formation of clay minerals, as they are typical end products of intense and prolonged chemical weathering.

Humid Tropical Soils and Land-Use Problems
The formation of laterites and duricrusts in the humid tropics is discussed. The chemical and physical properties of humid tropical soils are examined with reference to agriculture. The consequences of forest clearance are discussed in relation to Amazonia.

Semi-Arid Tropical Soils and Land-Use Problems
Focus on the nature of semi-arid soils and the problems associated with establishing permanent agriculture. Examination of the irrigation methods and problems associated with salinization.

Desertification
The Sahel will be used as a case study. The GLASOD method of monitoring will be introduced, and strategies for combating desertification and for land recovery will be examined.

Slope Failure and Tropical Land Management
The reasons for slope failure in the humid and wet-dry tropics are examined. The recognition of slope failure as a major agricultural land management problem, and appropriate and affordable amelioration strategies are also examined.

Soil Erosion and Tropical Land Management
An examination of the methods used in the recognition and monitoring soil erosion. Soil erosion estimation models are outlined as an important tool in the management of the soil erosion risk.

Land Degradation
An analysis of land degradation and its common occurrence in some agricultural systems. An assessment of the methods used for measuring land degradation and their effectiveness in identifying the problem.

Land Classification and Land Capability
An examination of the geomorphic approaches to land classification. The use of remotely-sensed imagery in land classification. An assessment of land capability in agricultural terms and the capacity of the soil to support different agricultural systems. The development and use of land capability systems in the tropics.

Land Management and Environmental Change
The implications of environmental change to geomorphic processes, water supply, and for food security and environmental management. The Caribbean Basin will be used as a case study for the implications of environmental change to land management in the humid tropics.
METHODS OF DELIVERY

This course will be delivered through a combination of 24 hours of interactive lectures and 6 hours of tutorials to compliment and further develop topics covered in the lectures. The practical sessions will examine the use of remote sensed imagery in the geomorphic approaches to land classification. During the tutorials, students will also be required to make a group presentation on an assigned topic (with each student delivering a part), following which there will be an interactive tutorial discussion. Students will be given one tutorial written assignment to test their factual knowledge, and to develop their problem solving abilities and critical thinking skills. The fieldtrip will expose students to the practical and field aspects of the course, through field observations, data collection, compilation and analysis. The field trip project is also designed to further advance their critical thinking skills and scientific report writing.

Course material will be made available electronically via OURVLE at http://ourvle.mona.uwi.edu/. This will include multimedia presentations/lecture notes, scientific articles, links to scientific articles on websites, and websites.

<table>
<thead>
<tr>
<th>Contact Hours</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures:</td>
<td>24</td>
</tr>
<tr>
<td>Practical Classes:</td>
<td>10</td>
</tr>
<tr>
<td>Tutorials:</td>
<td>6</td>
</tr>
<tr>
<td>Field Trip:</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

METHODS OF ASSESSMENT

A 2-hour written paper will test the degree to which students have grasped the concepts of the course through two structured essay-type answers. The tutorial essay assignment is designed to further develop and hone their scientific writing skills, through a detailed, well referenced and critical examination of a topic on land degradation. The practical exercises will examine the students’ ability to use remote sensed imagery in land classification and land capability. For the field project report, students will be assessed on their ability to separate observations, interpretations and conclusions, and to be able to form a coherent and well referenced discussion.

One 2-hour theory examination: 50%
Coursework:
Field report: 20%
Practical exercises: (7.5% each) 15%
Tutorial essay assignment: 15%
**Total** 100%
REFERENCES

(a) HIGHLY RECOMMENDED


Available at www.unu.edu/unupress/unupbooks/uu27se/uu27se00.htm [Accessed Feb 2013]


(b) RECOMMENDED


(c) USEFUL WEBSITES


www.unccd.int/ UN Convention to Combat Desertification website.

www.isric.nl/ International Soil Reference and Information Centre website.

www.unep.org UNEP website includes information on land degradation research.
COURSE TITLE: GEOGRAPHY RESEARCH PROJECT
COURSE CODE: GEOG3430
CREDITS: 6
LEVEL: III
SEMESTER: 1 YEAR LONG

PREREQUISITES:

GEOG2331 (RESEARCH METHODS IN GEOGRAPHY), AND
GEO2232 (INTRODUCTION TO GEOGRAPHICAL INFORMATION SYSTEMS)

AND at least Two of:
GEOG2131 (URBAN GEOGRAPHIES)
GEOG2132 (GEOGRAPHIES OF DEVELOPMENT)
GEOG2231 (EARTH SURFACE PROCESSES)
GEOG2232 (ENVIRONMENTAL CHANGE)

RATIONALE

This course is a key component of the Geography Major. It provides an opportunity for students to undertake in-depth empirical research of a geographical topic of particular interest, or in a field in which they may wish to pursue a career or undertake further postgraduate research. The course will provide the necessary skills in research design, field data collections and analysis, and report writing which are key components of a graduate’s portfolio in preparation for the world of work, or for an academic career. The course is designed to develop professional skills pertinent to the organization and conduct of independent field research through self-directed learning and enquiry.

COURSE DESCRIPTION

The Geography Research Project builds on the Research Methods course taught at Level II. The course guides students through an intensive research design and implementation process, culminating in a formal presentation of research findings and the submission of a substantive empirical dissertation. It requires the formulation of a project proposal, which involves identifying a research question, research design, organizing fieldwork, data collection and data analysis. The course culminates in a substantive academic presentation and dissertation based on research findings. The assessment involves examining both written technical skills and an oral presentation skill; and thus offers students the opportunity to demonstrate the qualities of independence and creativity by the pursuit of a topic of interest at depth. The project is undertaken under the guidance of a supervisor.

LEARNING OUTCOMES

On the successfully completion of this course, students should be able to:

- Design a relevant research project which defines a study area, includes a statement of methods of data collection and data analysis, and a time management plan.
• Perform a literature search on the topic and write a literature review.
• Use appropriate IT resources to support a written project report.
• Deliver an oral presentation which communicates information effectively.
• Write a dissertation which conforms to the academic and technical standards of the discipline and communicates ideas and results in an effective manner.
• Manage time effectively to achieve specified objectives during the research process.

COURSE CONTENT

The course involves a series of steps in which the student progress through the various stages of the formulation of a research project, the execution of the project and presentation of results. At the first stage, students must complete a research proposal based on a literature search. The proposal involves the formulation of a research question, a statement of research design and methodology and includes details of any sampling methods, laboratory techniques and methods of analysis to be used. The proposal is assessed and the proposal must satisfy the assessors before the student can proceed to the next stage. At the second stage, the student is assigned to a supervisor who assists with the fine-tuning of the research design and methodology, before students proceeds to the field data collection stage. A third stage involves the submission of progress report to the supervisor, and the report includes an indication of a work plan to complete the data analysis and write up. The final stages of the course are the formal graded assessment of the project, and involve a PowerPoint presentation of the research results, and the submission of a dissertation.

There are a number of formal classes:

1. Course outline and requirements, the research proposal, methods of assessment.
2. Research design for geography theses
3. Literature search and literature review
5. Guide to preparing bibliographies and citing literature
6. Preparing, labelling and numbering tables, graphs and diagrams
7. Research ethics and plagiarism

METHODS OF DELIVERY

The project is focused on self-directed learning. An important method of instruction is through interaction with a supervisor, usually one-to-one discussion or supervision under field conditions. There are a number of formal support classes which students are required to attend. These classes will combine a lecture and tutorial discussion formats. Where appropriate, a supervisor may organize group discussions among students working on similar topics. The seminars involve students presenting their final dissertation on an individual basis, by means of a multimedia presentation.
<table>
<thead>
<tr>
<th>Contact Hours</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>14</td>
</tr>
<tr>
<td>Fieldwork/Lab Analysis</td>
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<tr>
<td>Tutorials</td>
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<tr>
<td>Multimedia Presentations</td>
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<td><strong>Total</strong></td>
<td><strong>108</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>78</strong></td>
</tr>
</tbody>
</table>

**METHODS OF ASSESSMENT**

Progress from various stages of the course is conditional on the successful completion of that stage. The proposal form and progress reports are both assessed stages, though the assessment is zero-rated in terms of its contribution to the final mark. Where assessment is unsatisfactory, the student has an opportunity to resubmit the relevant material again, suitably revised. Details of the assessment methods are communicated to the student at each stage. The oral presentation involves a multimedia presentation with follow-up questions from the panel of assessors. The written dissertation (about 8,000 words) must conform to specifications laid out under departmental regulations for undergraduate geography theses.

- Project Report: (dissertation) 80%
- In-course assessment: 20% comprising:
  - Project proposal: 0% (necessary to continue but zero-rated)
  - Progress report: 0% (necessary to continue but zero-rated)
  - Oral presentation: 20%
- **Total 100%**

**RECOMMENDED REFERENCES**


**USEFUL WEBSITES**

http://bookshop.blackwell.co.uk/extracts/978199202959bryman [SRM].pdf