# USING BUILDING BLOCKS TO DESIGN & SYNTHESIZE RESEARCH PROJECT

Maction Komwa, PhD

Department of Geography and Geoinformation Science

Presented at the 13th Annual Innovations In Teaching & Learning (ITL) conference

George Mason University, Fairfax – VA Sept 22, 2021

# **Course & Objectives**

### **Course:**

Synthesis Course in Geography Dept.: [GGS 303]

## **Course Description**

• Provides analysis of world resources distribution, conservation, and preservation; and problems resulting from their natural occurrence and utilization.

## **Objectives:**

- learn a variety of approaches and tools of analysis, and synthesis towards a philosophy of nature conservation.
- Apply critical thinking skills and quantitative reasoning so that students can evaluate the quality, credibility and limitations of an argument or a sustainable solution using appropriate evidence.
- Promote effective written and oral communications skills as part of synthesis course.

## **Overview**

- Students will work on a real-world project by choosing a research topic on conservation or environmental issue.
- Student progress through the major phases of research process:
  - problem framework
  - creating conceptual framework for analysis
  - generating insights objectively
  - establishing a point of view.

# **Designing Research Project**

## • TILT Purpose Statement:

- By describing the key skills students will practice and/or knowledge that students will gain.
- Connection of the skills to the larger concept of the course or career building.
- How the knowledge/skills applies to the real-world issues or their own personal experience.

# **GRID for Planning Research Project**

## Grid for Planning Research Project

Assignment/Task	Relevant Course SLO(s)	Relevant Learning Support Task [LSTs] or Collaborative Activities to Support Learning	Learning Goals	Cross Modality	For Instructor Only: Prep or Feedback
What content or issue will students address?  [Connect <> TILT Purpose Statement]	How are the assignments relevant to SLO?  E.g. Evaluating conservation and planning methods using scholarly articles.	Activities or tasks that enable student learning, e.g. [sheltered, formative, applied, & (inter) active].  Group Discussion, Writing, etc.	What smaller skill or concept should students be able to know or do better today for their assignment/project?  Articulate key terms, identify popular topic published within the discipline. [Extend knowledge and understanding].  Locate scholarly articles, collect and maintain research records using Zotero, etc.	What can students do in an alternate modality (e.g. Blackboard asynch.) in preparation or follow-up for assignment, watch documentary, etc.	What items are needed to conduct this week's activities/assignments?  What will students need to prepare?  Will there be feedback you need to provide (automated, peer, instructor)?

# **Guidelines for Research Project**

The final paper will be 15 pages, double spaced with Font size of 12. This doesn't include cover page and reference section. Points will be deducted accordingly for not following instructions outlined above!

#### GGS 303-001

#### Fall 2021

#### Final Research Project Guidelines

#### Title page (1 point)

Full title of the research paper

- Title clearly indicates a conservation concept of natural resources and environment.
  - It should be an effective title that includes descriptive terms and words/phrasesthat accurately highlight the main theme of the paper.

#### Abstract (2 points)

- The title page should be followed by an abstract consisting of no more than 300 words.
- The abstract should be a concise summary of the work containing essential concepts, emergent findings, and conclusion (250 – 300 words)

#### Introduction (12 points) - Please use Headings and Sub-headings

- Background of the study
  - As you are writing the background of your research topic, try to use specific facts, evidence, paraphrases, and always identify your sources.
- Statement of the problem
  - Carefully formulate your thesis or problem statement.
- Identify the Purpose of the study
  - The purpose of this research study is ....
- Significance of the study
- This project work is designed to provide .....
- Research questions if any

#### Methodology and procedure of study (5 points)

- Think about the ways in which you processed the data and the procedures you used to analyze that data/information.
  - How was the data/information collected or generated and analysed?
- Team member roles Assign tasks to team members |
  - What was the role of each member of your group for your research project?

#### Findings (10 points)

 To synthesize information is much more than simply reporting – this means making connections or putting things together.

#### Recommendations (5 points)

Finally, your group should include a well-thought-out set of recommendations

#### Limitations of Study (5 points)

 There is no perfect research, each study has its flaws and negative sides. Identify and acknowledge your study's limitations than the limitations to be identified by the audience/reader.

#### Implications and Conclusions (5 points)

 You should attempt to bring together all the issues of your research paper and link back to the aim and objectives of the study outlined in your Introduction.

#### References (5 Points):

• A minimum of 10 References - use credible sources (APA style)

## Thank You!

Questions????